Sequence Sequence Sequence

Sequence

Sequence Sequence Sequence Sequence Sequence

Sequence Sequence Sequence

Sequence

Sequence Sequence Sequence

OM nucleic

Run on:

Sequence:

Searched:

```
Sequence 136302, Application US/09949016

Batent No. 6812339
GENERAL INFORMATION:
FOR INVENTION:
FOR INVENTION:
FOR INVENTION:
FILLE OF INVENTION:
FOR INVENTION:
FILLE OF INVENTION:
FILL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Gould-Rothberg
APPLICANT: Gould-Rothberg
APPLICANT: Rastelli
TITLE OF INVENTION: METHOD OF CLASSIFYING A THYROID CARCINOMA USING
TITLE OF INVENTION: DIFFERENTIAL GENE EXPRESSION
FILE REFERENCE: 15966-548
CURRENT APPLICATION NUMBER: US/09/552,322
CURRENT FILING DATE: 2000-04-19
PRIOR PLLING DATE: 1999-04-20
PRIOR PLLING DATE: 1999-04-20
PRIOR PLLING DATE: 60/193,203
PRIOR PLLING DATE: 60/193,203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 2132;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
US-09-270-767-14907
US-08-427-097-13
US-08-427-097-19
US-08-878-957-13
US-08-878-957-13
US-09-949-016-15349
US-09-949-016-15349
US-09-949-016-15350
US-09-949-016-15509
US-09-949-016-15509
US-09-949-016-15509
US-09-949-016-15509
US-09-949-016-14516
US-09-949-016-14516
US-09-949-016-14516
US-09-949-016-14516
US-09-949-016-14516
US-09-949-016-14519
US-09-949-016-14519
US-09-949-016-14519
US-09-949-016-14519
US-09-949-016-14519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 16.4; DE
Pred. No. 78;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                   ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1, Application US/09552322
Patent No. 6436642
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             844 AATGTCATCGTCCCGAG 861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AATGICATCGICCCGGG 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 94.4%;
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS: 63
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                 134987
134987
                                                                                                                                                                                         134987
                                                                                                                                                                                                             134987
                                                                                                                                                                                                                                    134987
                                                                                                                                                                                                                                                                             203475
                                                                                                                                                                                                                                                     134987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  , ORGANISM: Homo sapiens
US-09-552-322-1
        RESULT 2
US-09-949-016-136302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 1
LENGTH: 2132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-552-322-1
                                               ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: DNA
        00000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1, Appli
                                                                                                                                                                    (without alignments)
7660.750 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Appl
Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       number of results predicted by chance to have a in or equal to the score of the result being printed, analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  136302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7856,
                                                                                                                                                 April 11, 2005, 19:46:51; Search time 4.05825 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /cgn2_6/ptodata/1/ina/5A_COMB.seq:*
/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/B_COMB.seq:*
/cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
/cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
                           GenCore version 5.1.6
(c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-902-540-8517-
US-09-902-540-897
US-08-427-097-12
US-08-419-078-5
US-08-419-078-5
US-08-419-078-6
US-08-419-078-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -09-551-621-451
-09-248-796A-7856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-292-036-1
US-09-949-016-15571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -09-433-826B-451
-09-604-287A-451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .09-834-759-451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -09-620-405B-451
                                                                                                                                                                                                                                                                                                                                                                                                               Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             09-389-681-451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JS-08-726-883-1
JS-09-023-655-55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-08-726-883-4
US-09-389-681-45
US-09-620-405B-4
                                                                                                                                                                                                                                                                                                                                                                           1202784 seqs, 818138359 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -08-419-078-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -09-187-478-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                          nucleic search, using sw model
                                                                                                                                                                                                                                                                        1 taatgtcatcgtccccggg 19
                                                                                                                                                                                                                                                                                                               IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Issued Patents NA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No. is the number of res
score greater than or equal to
and is derived by analysis of
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                              US-09-979-558A-2
19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2338
2350
2350
51049
636
6855
                                               Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4. 7. 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Post-processing:
                                                                                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                Title:
Perfect score:
```

Database :

ö

Gaps

ö

16.4 115.4 115.4 115.4 15.4 15.4

0000

Result

```
셤
                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: Japan Tobacco, Inc.
APPLICANT: Japan Tobacco, Inc.
TITLE OF INVENTION: and Medicinal Antibody Against Connective Tissue Growth Factor TITLE OF INVENTION: and Medicinal Uses Thereof FILE REPERENCE: JL-009PCT
CURRENT APPLICATION NUMBER: US/09/582,337
CURRENT FILING DATE: 2000-06-23
PRIOR PILING DATE: 1997-12-25
PRIOR PILING DATE: 1997-12-25
NUMBER OF SEQ ID NOS: 27
SOFTWARE OF SEQ ID NOS: 27
SOFTWARE PARENT OF 1000 NUMBER: JP SEQ ID NOS: 27
SOFTWARE PARENT OF SEQ ID NOS: 27
                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-187-478-1/C

Sequence 1, Application US/09187478

Fatent No. 6348329

GENERAL INFORMATION:
APPLICANT: Schmidt, Brian F.
APPLICANT: Schmidt, Brian F.
TITLE OF INVENTION: Connective Tissue Growth (CTGF) And Methods Of Use FILE REFERENCE: 08766/00401

FILE REFERENCE: 19766/00401

CURRENT APPLICATION UNMBER: US/09/187,478

CURRENT FILING DATE: 1998-11-06

NUMBER OF SEQ ID NOS: 2

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 1

LENGTH: 2350
                                                                                                                                                                                                                                  ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match

81.1%; Score 15.4; DB 4; Length 2338;
Best Local Similarity 94.1%; Pred. No. 2.5e+02;
Matches 16; Conservative 0; Mismatches 1; Indels 0
                                                                                                                                                                                81.1%; Score 15.4; DB 4; Length 601; 94.1%; Pred. No. 2.2e+02; ive 0; Mismatches 1; Indels (
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 136302
LENGTH: 601
                                                                                                                                                                                                                                                                                                                                                                                          RESULT 3
US-09-582-337-1/c
; Sequence 1, Application US/09582337
; Patent No. 6562618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1210 Argrearrereceeses 1194
                                                                                                                                                                                                                                                                             3 ATGTCATCGTCCCCGGG 19
                                                                                                                                                                                                                                                                                                              61 ATGTCATTGTCCCCGGG 77
                                                                                                                                                                                                                             16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: polyA signal LOCATION: (2297)..(2302)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (213) .. (1256)
                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (1) .. (212)
                                                                                        ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-136302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 1
LENGTH: 2338
                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6
```

```
Sequence 15571, Application US/09949016

Fatent No. 6812339

GENERAL INFORMATION:

GENERAL INFORMATION:

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

CURRENT APPLICATION NUMBER: 08/09/949,016

CURRENT APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20

PRIOR FILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-10-03

WINMER OF SEQ ID NOS: 207012

SOFTWARE: FASESEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: ALLEN, Margaret
APPLICANT: ALLEN, Margaret
APPLICANT: SURBRUP, Fran
APPLICANT: SURBRUP, Fran
APPLICANT: CARMICHAEL, David
TITLE OF INVENTION: CONNECTIVE TISSUE GROWTH FACTOR (CTGF) AND METHODS OF USE
FILE REFERENCE: FIBROLIOG-1
CURRENT APPLICATION NUMBER: US/09/292,036
CURRENT FILING DATE: 1999-04-14
PRIOR PILING DATE: 1999-04-14
PRIOR PILING DATE: 1999-11-06
NUMBER OF SEQ ID NOS: 18
SOFTWARE: Patentin version 3.0
SEQ ID NO:
                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                  Score 15.4; DB 3; Length 2350;
Pred. No. 2.5e+02;
0; Mismatches 1; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 2350;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 15.4; DB 3;
Pred. No. 2.5e+02;
0; Mismatches 1;
TYPE: DNA
ORGANISM: No. 6348329mal Rate Kidney Fibroblast
                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1, Application US/09292036 Patent No. 6358741
                                                                                                                                                                                                                                                                                                                           1209 ATGTCATTGTCCCCGGG 1193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1209 Arcrearrerececes 1193
                                                                                                                                                                                                                                                                          3 ATGTCATCGTCCCCGGG 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3 ATGTCATCGTCCCCGGG 19
                                                                                                                                                                          81.1%;
94.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 94.1%;
Matches 16; Conservative
                                                                                                                                                                        Query Match
Best Local Similarity 94.1
Matches 16; Conservative
                                              ; FEATURE:
; NAME/KEY: CDS
; LOCATION: (212)..(1252)
US-09-187-478-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; FEATURE:
; NAME/KEY: CDS
; LOCATION: (212)..(1252)
US-09-292-036-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JS-09-949-016-15571/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA
ORGANISM: Rat
```

```
Query Match
                                                                                                    RESULT 9
                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            엄
                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Goldman, Barry S.
APPLICANT: Goldman, Gregory J.
APPLICANT: Hinkle, Gregory J.
APPLICANT: Steven C.
APPLICANT: Steven C.
APPLICANT: Steven C.
TITLE OF INVENTION: Myxococcus xanthus Genome Sequences and Uses Thereof FILE REFERENCE: 38-10(15849)B
CURRENT APPLICATION NUMBER: US/09/902,540
CURRENT FILING DATE: 2001-07-10
PRIOR APPLICATION NUMBER: 60/217,883
PRIOR PILING DATE: 2000-07-10
NUMBER OF SEQ ID NOS: 16825
SEQ ID NO 897
                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:

GENERAL INFORMATION:

APPLICANT: Gregory J.

APPLICANT: Blater, Steven C.

APPLICANT: Mindle, Gregory J.

APPLICANT: Wiegand, Roger C.

TITLE OF INVENTION: Wycococcus xanthus Genome Sequences and Uses Thereof FILE REFERENCE: 38-10(1584)80

FILE REFERENCE: 38-2001-07-10

PRIOR FILING DATE: 2000-07-10

PRIOR FILING DATE: 2000-07-10

PRIOR FILING DATE: 2000-07-10

PRIOR FILING DATE: 2000-07-10

SEQ ID NO 9517

LENGTH: 636
                                                                                                                                                                                              Gaps
                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ..
0
                                                                                                                                      Score 15.4; DB 4; Length 51049;
Pred. No. 3.3e+02;
0; Mismatches 1; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 78.9%; Score 15; DB 4; Length 6855; Best Local Similarity 100.0%; Pred. No. 4.4e+02; Matches 15; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 78.9%; Score 15; DB 4; Length 636; Best Local Similarity 100.0%; Pred. No. 3.6e+02; Matches 15; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                        RESULT 7
US-09-902-540-8517/c
Sequence 8517, Application US/09902540
; Patent No. 6833447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; Sequence 897, Application US/09902540; Patent No. 6833447; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                    13225 Arcrearrereceeded 13209
                                                                                                                                                                                                                                        3 ATGTCATCGTCCCCGGG 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    279 GTCATCGTCCCCGGG 265
                                                                                                                                        Query Match 81.1%;
Best Local Similarity 94.1%;
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; TYPE: DNA
; ORGANISM: Myxococcus xanthus
US-09-902-540-8517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S GICALCGICCCCGGG 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
COGANISM: Myxococcus xanthus
US-09-902-540-897
; SEQ ID NO 15571
; LENCTH: 51049
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-15571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-902-540-897/c
                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
```

ö

Gaps

ö

5 GTCATCGTCCCCGGG 19

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               77.9%; Score 14.8; DB 1; Length 99; 88.9%; Pred. No. 3.8e+02; ive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 10
US-08-878-957-12
is Sequence 12, Application US/08878957
Fatent No. 5965796
GENERAL INFORMATION:
APPLICANT: Meagher, Richard B.
APPLICANT: Summers, Anne O.
TITLE OF INVENTION: Metal Resistance Sequences and TITLE OF INVENTION: Transgenic Plants
NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
ADDRESSEE: Greenlee, Winner and Sullivan, P.C.
STREET: S370 Manhattan Circle, Suite 201
                                                                                                                                                                                                                       Sequence 12, Application US/08427097

Sequence 12, Application US/08427097

Seneral INFORMATION:
APPLICANT: Meagher, Richard B.
APPLICANT: Sommers, Anne O.
TITLE OF INVENTION: Metal Resistance Sequences and TITLE OF INVENTION: Transgenic Plants
NUMBER OF SEQUENCES: 30
CORRESPONDENCE ADDRESS:
Annewegener Control of the C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION NDATA:
APPLICATION NUMBER: US/08/427,097
FILING DATE: 21-APR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: Greenlee, Winner and Sullivan, P.C. STREET: 5370 Manhattan Circle, Suite 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: other nucleic acid
DESCRIPTION: /desc = "Oligonucleotide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
NAME: Ferber, Donna M.
REGISTRATION NUMBER: 33,978
REFERENCE/DOCKET NUMBER: 40-
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 TAAIGICAICGICCCCGG 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEPHONE: (303) 499-8080
TELEFAX: (303) 499-8089
INFORMATION FOR SEQ ID NO: 12:
SEQUENCE CHARACTERISTICS:
LENGTH: 99 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS: single '
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity
Matches 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       80303
                                                                                                                                                                                                                   US-08-427-097-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STATE: C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-427-097-12
```

; 0

```
Score 14.8; DB 1; Length 170;
Pred. No. 4e+02;
0; Mismatches 2; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 14.8; DB 1; Length 170;
Pred. No. 4e+02;
0; Mismatches 2; Indels (
                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                δ;
. 4e+02;
2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/419,078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 6, Application US/08419078
Patent No. 5587306
GENERAL INFORMATION:
APPLICANT: SEILHAMER, JEFFREY J.
TITLE OF INVENTION: PHOSPHOLIPASE C HOMOLOG
NUMBER OF SEQUENCES: 13
CORRESPONDENCE ADDRESS:
ADDRESSEE: INCYTE PHARMACEUTICALS, INC.
STREET: 3330 HILLVIEW AVENUE
CITY: PALO ALTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE.FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                     134 AATGTCATCCTCCACGGG 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
CLASSIFICATION: 435
ATTORNEY/ABGNT INFORMATION:
NAMB: LUTHER, BARBARA J.
REGISTRATION NUMBER: 33954
REPERENCE/DOCKET NUMBER: PFOI
TELEPHONE: 415-855-0555
                                                                                                                                                                                                                                                                                                                                                                                            19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 AATGTCATCGTCCCCGGG 19
                                                                                                                                                  TOPOLOGY: linear
MOLECULE TYPE: CDNA
INMEDIATE SOURCE:
LIBRARY: Corneal Stroma
CLONE: 046611
                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 88.9%;
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                            2 AATGTCATCGTCCCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    77.9%;
88.9%;
TELEPHONE: 415-855-0555
TELEPARA: 415-855-0572
INFORMATION FOR SEQ ID NO: 5
SEQUENCE CHARACTERISTICS:
LENGTH: 170 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: 415-855-0572
INFORMATION FOR SEQ ID NO: 6
SEQUENCE CHARACTERESTICS:
LENGTH: 170 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 88.99
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Fibroblast
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: linear MOLECULE TYPE: CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIAL.
LIBRARY: FILL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-419-078-6/c
                                                                                                                                                                                                                                          ; CLONE: (
US-08-419-078-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2; Indels
                                                                                                              URENATING SISTEM: EL-BOS/MS-BOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/878,957
FILING DATE: US-UN-1997
CLASSIFICATION: 800
PRIOR APPLICATION: 800
PRIOR APPLICATION NUMBER: US 08/427,097
FILING DATE: 21-APR-1995
ATTONNEY/AGENT INPORMATION:
NAME: FEEDENCE/DOCKET NUMBER: 33,878
REGISTRATION NUMBER: 33,878
REFERENCE/DOCKET NUMBER: 40-94A
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEFRAX: (303) 499-8080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IS Floppy disk
COMPUTER: ISM PC compatible
COMPUTER: PATENTING SYSTEM: PC-DOS/MS-DOS
SOCTAMER: PEPLICATION NUMBER: US/08/419,078
FILING DATE:
FILING DATE:
CLASSIFICATION:
NAME: LUTHER: BARBARA J.
REGISTRATION NUMBER: 33954
REFERENCE/DOCKET NUMBER: PP0030 US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               77.9%; Score 14.8; DB 2;
88.9%; Pred. No. 3.8e+02;
iive 0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: HAWKINS, PHILLIP R.
APPLICANT: SEILHAMER, JEFREY J.
TITLE OF INVENTION: PHOSPHOLIPASE C HOMOLOG
WHERE OF SEQUENCES: 13
CORRESPONDENCE ADDRESS:
ADDRESSEE: INCYTE PHARMACEUTICALS, INC.
STREET: 3330 HILLVIEW AVENUE
CITY: PALO ALTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear
MOLECULE TYPE: other nucleic acid
DESCRIPTION: /desc = "Oligonucleotide"
                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 5, Application US/08419078
Patent No. 5587306
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 TAATGICATCGICCCGG 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          79 rárrichicárcacccces 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATION FOR SEQ ID NO: 12: SEQUENCE CHARACTERISTICS: LENGTH: 99 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 16; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; ANTI-SENSE: NO
US-08-878-957-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-419-078-5/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CITY: F
STATE:
```

ö

Gaps

ö

```
Score 14.8; DB 1; Length 170;
Pred. No. 4e+02;
0; Mismatches 2; Indels
                                                                                                                                               CURRENT APPLICATION DATA:

SOFTWARE: Patentin Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/726,883

FILING DATE: 04-0CT-1996

CLASSIFICATION: 435

PRIOR APPLICATION: 435

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/419,078

FILING DATE: 10-APR-1995

ATTORNEY/AGENT INFORMATION:

NAME: LUTHER, BARBARA J.

REGISTRATION NUMBER: 33954

REFERENCE/DOCKET NUMBER: PF0030 US

TELEPHONE: 415-855-0555

TELEPHONE: 415-855-0557

INFORMATION FOR SEQ 1D NO: 6:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY: USA
ZIP: 94304
COMPUTER REDABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/419,078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 15
US-08-410-078-4/C

| Sequence 4 Application US/08419078 |
| Patent No. 5587306 |
| GENERAL INFORMATION: APPLICANT: HAWKINS, PHILLIP R. APPLICANT: SHILHANER, UBFERRY J. TITLE OF INVENTION: PHOSPHOLIPASE C HOMOLOG |
| OMBER OF SEQUENCES: 13 CORRESPONDENCE ADDRESS: ADDRESSEE: INCYTE PHARMACEUTICALS, INC. STREET: 3330 HILLVIEW AVENUE |
| CITY: PALO ALTO STATE: CA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PF0030 US
                                         ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 134 AATGTCATCCTCCACGGG 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: PETELECOMMUNICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY AGENT INFORMATION:
NAME: LUTHER, BARBARA J.
REGISTRATION NUMBER: 33954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                77.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 170 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 88.9
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LIBRARY: Fibroblast
CLONE: 054216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE: CDNA IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-726-883-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             y Match 77.9%; Score 14.8; DB 1; Length 170; Local Similarity 88.9%; Pred. No. 4e+02; nes 16; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IS POC COMPATIBLE
COMPOTER: IS PACE COMPATIBLE
COMPOTER: IS PACE COMPATIBLE
SOFTWARE: PACENTIN Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/126,883
FILING DATE: 04-OCT-1996
CLASSIPICATION: 435
FILING DATE: 10-AFR-1995
ATTORNEY AGENT INFORMATION:
NAME: LUTHER, BARBARA J.
REGISTRATION NUMBER: PP0030 US
TELEPHONE: 415-855-0555
TELEFACOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 170 base pairs
TYPE: MOLALS SINGLE
STRANDEDNESS: SINGLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-76-883-6/c

Sequence 6, Application US/08726883

Patent No. 5676946

GENERAL INFORMATION:
APPLICANT: HAWKINS, PHILLIP R.
APPLICANT: SELLHAMEN, JEFFREY J.
TITLE OF INVENTION: PHOSPHOLIPASE C HOMOLOG
NUMBER OF SEQUENCES: 13
CORRESPONDENCE ADDRESS:
ADDRESSEE: INCYTE PHARMACEUTICALS, INC.
STREET: 3330 HILLVIEW AVENUE
CITY: PALO ALTO
                                                                                                                                                                        GENERAL INFORMATION:
APPLICANT: HAWKINS, PHILLIP R.
APPLICANT: SEILHAMER, JEFFREY J.
TITLE OF INVENTION: PHOSPHOLIPASE C HOMOLOG
NUMBER OF SEQUENCES: 13
CORRESPONDENCE ADDRESS:
ADDRESSE: INCYTE PHARMACEUTICALS, INC.
STREET: 3330 HILLVIEW AVENUE
CITY: PALO ALTO
                                                                                                          US-08-726-883-5/c; Sequence 5, Application US/08726883; Patent No. 5676946
134 AATGTCATCCTCCACGGG 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 AATGTCATCGTCCCCGGG 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LIBRARY: Corneal Stroma CLONE: 046611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                        USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: 1:
MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                        CITY: PAI
STATE: CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-726-883-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Loca
Matches
                       윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
```

ö

Gaps

ö

```
ö
                                                                                                                                                                                                                                                                               Query Match 77.9%; Score 14.8; DB 1; Length 300; Best Local Similarity 88.9%; Pred. No. 4.2e+02; Matches 16; Conservative 0; Mismatches 2; Indels 0; Gaps
TELEPHONE: 415-855-0555

TELEFAX: 415-855-0572

INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 300 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TYPE: TOPOLOGY: linear
MOLECULE TYPE: cDNA
IMMEDIATE SOURCE:
ILBRARY: Hybrid T/B Lymphoblast
CLONE: 043866
US-08-419-078-4
                                                                                                                                                                                                                                                                                                                                                                                    2 AATGTCATCGTCCCCGGG 19
                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                              ò
```

Search completed: April 12, 2005, 06:04:10 Job time : 6.05825 secs

£.

```
April 12, 2005, 04:59:42; Search time 14.1055 Seconds (without alignments) 8162.777 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Published Applications NA:*

1: /cgn2_6/ptodata/1/pubpna/USO7_PUBCOMB.seq:*
2: /cgn2_6/ptodata/1/pubpna/PCT NEW PUB.seq:*
3: /cgn2_6/ptodata/1/pubpna/PCT NEW PUB.seq:*
4: /cgn2_6/ptodata/1/pubpna/NSO6_NEW PUB.seq:*
5: /cgn2_6/ptodata/1/pubpna/USO6_PUBCOMB.seq:*
6: /cgn2_6/ptodata/1/pubpna/NSO8_PUBCOMB.seq:*
7/cgn2_6/ptodata/1/pubpna/USO8_PUBCOMB.seq:*
8: /cgn2_6/ptodata/1/pubpna/USO8_PUBCOMB.seq:*
9: /cgn2_6/ptodata/1/pubpna/USO8_PUBCOMB.seq:*
11: /cgn2_6/ptodata/1/pubpna/USO9_PUBCOMB.seq:*
12: /cgn2_6/ptodata/1/pubpna/USO9_RUBCOMB.seq:*
13: /cgn2_6/ptodata/1/pubpna/USO9_RUBCOMB.seq:*
14: /cgn2_6/ptodata/1/pubpna/USO9_RUBCOMB.seq:*
15: /cgn2_6/ptodata/1/pubpna/USO9_RUBCOMB.seq:*
16: /cgn2_6/ptodata/1/pubpna/USOP_PUBCOMB.seq:*
17: /cgn2_6/ptodata/1/pubpna/USOP_PUBCOMB.seq:*
18: /cgn2_6/ptodata/1/pubpna/USOP_PUBCOMB.seq:*
19: /cgn2_6/ptodata/1/pubpna/USOP_PUBCOMB.seq:*
19: /cgn2_6/ptodata/1/pubpna/USOP_PUBCOMB.seq:*
19: /cgn2_6/ptodata/1/pubpna/USOP_PUBCOMB.seq:*
10: /cgn2_6/ptodata/1/pubpna/USOP_PUBCOMB.seq:*
11: /cgn2_6/ptodata/1/pubpna/USOP_PUBCOMB.seq:*
12: /cgn2_6/ptodata/1/pubpna/USOO_NEW_PUB.seq:*
13: /cgn2_6/ptodata/1/pubpna/USOO_NEW_PUB.seq:*
14: /cgn2_6/ptodata/1/pubpna/USOO_NEW_PUB.seq:*
15: /cgn2_6/ptodata/1/pubpna/USOO_NEW_PUB.seq:*
16: /cgn2_6/ptodata/1/pubpna/USOO_NEW_PUB.seq:*
17: /cgn2_6/ptodata/1/pubpna/USOO_NEW_PUB.seq:*
18: /cgn2_6/ptodata/1/pubpna/USOO_NEW_PUB.seq:*
19: /cgn2_6/ptodata/1/pubpna/USOO_NEW_PUB.seq:*
21: /cgn2_6/ptodata/1/pubpna/USOO_PUBCOMB.seq:*
22: /cgn2_6/ptodata/1/pubpna/USOO_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11230502
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5615251 seqs, 3030001701 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                        OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 taatgtcatcgtccccggg 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                            US-09-979-558A-2
19
                                                                                                                                                                                                                                                                                                                                                                                                        Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Searched:
                                                                                                                                                                                                                                            Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Appl	equence 301, App	App,	App	Appl	App1	App1	Appl	Appl	Appl	Sequence 76, Appl
	18,	01,	301	38,	0	76,	76,	76,	76,	76,	76,
ion	ice .	36	ce	.e.	9 5	ce	ce	ce	ce	ce	ЭСе
Description	que	sequence 301,	quer	uen	nen	quer	quer	quer	quer	quer	quer
Sesc	Se	Sed	Se	Seq	Seg	Se	Se	Se	Se	Se	Se
		ī	101	8	_	9	94.	US-10-006-818A-76	94.	.76	92.
	95-1	8-30	5-90	3-23	3-20	74-7	56A-	18A-	85A-	07A-	99A-
	59-3	5-29	12-8	1-85	3-14	6-3	9-9	9-9	6-4	3-9	5-4
	0-16	-925	0-10	-764	-818	6-6	0-0	0-0	0-0	0-0	0-0
0	JS-1	3-09	JS-1	3-09	3-09	JS-0	JS-1	JS-1	13-1	JS-1	JS-1
ID	1,	ö	7	ñ	š	2	<u>ر</u>	-	<u>ب</u>	יי	<u>۔</u>
DB	H	σ	7	σ	σ	Ä	Ä	Ä	ä	7	Ä,
% Query Match Length DB	1329	1882	1882	1926	1987	1989	1989	1989	1989	1989	1989
ភូមិ	86,3	۳.	86.3	٣.	'n	۳.	m.	86.3	m.	'n.	ų
% Que Mat		86	8	8	8	86	8	86	86	86	88
Score	4.	4.	4.	4.	4.	4.	4.	16.4	4.	4.	4.
Sco	16	16	16	16	16	16	16	16	16	16	16
Result No.	1	~	n	4	2	9	7	<b>6</b> 0	6	10	11

Sequence 76, Appl Sequence 76,	
US-10-015-393A-76 US-10-015-393A-76 US-10-015-115A-76 US-10-006-115A-76 US-10-017-393A-76 US-10-017-393A-76 US-10-017-393A-76 US-10-011-671A-76 US-10-011-671A-76 US-10-011-671A-76 US-10-011-671A-76 US-10-011-671A-76 US-10-011-631A-76	US-10-006-130A-76 US-10-006-130A-76 US-10-017-253A-76 US-10-015-392A-76 US-10-017-306A-76 US-10-017-967A-76 US-10-012-064A-76 US-10-013-909A-76 US-10-013-909A-76 US-10-013-909A-76 US-10-013-309A-76 US-10-013-37A-76 US-10-013-37A-76
44444444444444	
00000000000000000000000000000000000000	
4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4.4.4.4.4.4.4.4.6.6.6.6.6.6.6.6.6.6.6.6
11111111111111111111111111111111111111	W W W W W A A A A A W O C C C C C C C C C C C C C C C C C C

H
z
丝
Σ
z
O
ų
7
~

ß

```
RESULT 1
US-10-169-195-18
Squence 18, Application US/10169395
Squence 18, Application US/10169395
Squence 18, Application US/20040034192A1
Squence 18, Application US USZ0040034192A1
Squence 18, Application US USZ0040034192A1
SAPLICANT: KATO, Seiahi
APPLICANT: KATO, Seiahi
APPLICANT: KATO, Seiahi
TITLE OF INVENTION: THESE PROTEINS
TITLE OF INVENTION: UNMER: US/10/169,395
CURRENT APPLICATION NUMBER: US 2000-11-29
PRIOR APPLICATION NUMBER: UP 2000-588
PRIOR FILING DATE: 2000-01-11
PRIOR APPLICATION NUMBER: UP 2000-2299
PRIOR FILING DATE: 2000-01-11
PRIOR APPLICATION NUMBER: UP 2000-58367
PRIOR FILING DATE: 2000-03-03
PRIOR FILING DATE: 2000-13-03
PRIOR FILING DATE:
```

g

ò

```
GENERAL INFORMATION:
APPLICANT: Walker, Michael G.
APPLICANT: Walker, Michael G.
APPLICANT: Walker, Mayne
APPLICANT: Klingler, Tod M.
TITLE OF INVENTION: POLYNUCLEOTIDES COEXPRESSED WITH MATRIX-REMODELING GENES FILE REFERENCE: PB-0004 CIPA
CURRENT APPLICATION NUMBER: US/09/818,143
CURRENT FILING DATE: 2001-03-26
NUMBER OF SEQ ID NOS: 23
SOFTWARE: PERL Program
SEQ ID NO 20
LENGTH: 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 238, Application US/09764853
Fatent No. US2002009672A1
GENERAL INFORMATION:
TITLE OF INVENTION: NUMBER: US/09/764,853
CURRENT APPLICANTION NUMBER: US/09/764,853
CURRENT PILING DATE: 2001-01-17
Prior application data removed - consult PALM or file wrapper NUMBER OF SEQ ID NOS: 939
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 238
LENGTH: 1926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1882;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 16.4; DB 9; Length 1926;
Pred. No. 1.4e+02;
0; Mismatches 1; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 16.4; DB 14;
Pred. No. 1.4e+02;
0; Mismatches 1;
                                                    OTHER INFORMATION: n equals a,t,g, or c NAME/KEY: misc feature LOCATION: (223) OTHER INFORMATION: n equals a,t,g, or c NAME/KEY: misc feature LOCATION: (1845) COCATION: (1845) COCATION: (1845)
                                                                                                                                                                                                                                                                                                                                                               CTHER INFORMATION: n equals a,t,g, or c US-10-102-806-301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 20, Application US/09818143
Patent No. US20020019000A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   529 AATGTCATCGTCCCCGAG 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       573 AATGTCATCGTCCCGAG 590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 AATGTCATCGTCCCCGGG 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 94.4%;
Matches 17; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 94.4%;
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 AATGTCATCGTCCCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA
ORGANISM: Homo sapiens
US-09-764-853-238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA ORGANISM: Homo sapiens FEATURE:
NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-764-853-238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-818-143-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 86.3%; Score 16.4; DB 9; Length 1882; Best Local Similarity 94.4%; Pred. No. 1.4e+02; Matches 17; Conservative 0; Mismatches 1; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 301, Application US/10102806
| Publication No. US20030054421A1
| GENERAL INFORMATION:
| APPLICANT: Rosen et al. |
| TITLE OF INVENTION: Nucleic Acids, Proteins and Antibodies FILE REFERENCE: PALOSPICI. |
| CURRENT APPLICATION NUMBER: US/10/102,806 |
| CURRENT FILING DATE: 2002-03-22 |
| PRIOR PPLICATION NUMBER: 09/25,298 |
| PRIOR PPLICATION NUMBER: 09/325,298 |
| PRIOR FILING DATE: 2001-03-08 |
| PRIOR FILING DATE: 2001-03-08 |
| PRIOR FILING DATE: 1999-03-12 |
| NUMBER: OF SEQ ID NOS: 846 |
| SEQ ID NO 301 |
| LENGTH: 1882 |
| CONTRARE: PATENTIN VET. 2.0 |
| SEQ ID NO 301 |
| CONTRARE: PATENTIN VET. 2.0 |
| CONTRARE P
                                                                                                                                                                                                                                                                                                                                                    GENERAL INVENTION:

GENERAL INVENTION:

TITLE OF INVENTION: Nucleic Acids, Proteins and Antibodies

FILE REFREENCE: PA103

CURRENT APPLICATION NUMBER: US/09/925,298

CURRENT FILING DATE: 2001-08-10

PRIOR APPLICATION NUMBER: PCT/US00/05981

PRIOR APPLICATION NUMBER: 60/124,270

PRIOR FILING DATE: 1999-03-12

NUMBER OF SEQ ID NOS: 846

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 301

LENGTH: 1882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTHER INFORMATION: n equals a,t,g, or c; NAME/KEY: misc_feature; LOCATION: (1849); OTHER INFORMATION: n equals a,t,g, or c US-09-925-298-301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION: (22)
OTHER INFORMATION: n equals a,t,g, or NAME/KEY: misc feature
T.OCATION: (223)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ör
                                                                                                                                                                                                                              US-09-925-298-301

; Sequence 301, Application US/09925298

; Publication No. US20020039764A1

; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCATION: (223)
OTHER INFORMATION: n equals a,t,g,
NAME/KEY: misc_feature
TOCATION: (1840)
                                                                                                 982 AATGICATCGICCCCGAG 999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               529 AATGICATCGICCCCGAG 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 AATGTCATCGTCCCGGG 19
                                  2 AATGICATCGICCCCGGG 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-102-806-301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
```

ò g ; OTHER INFORMATION: 3948614CB1 US-09-818-143-20

TYPE: DNA ORGANISM: Homo sapiens

FEATURE:

```
PRIOR FILING DATE: 1998-09-10
PRIOR APPLICATION NUMBER: 60/099812
PRIOR PALING DATE: 1998-09-10
PRIOR PELING DATE: 1998-09-10
PRIOR PELING DATE: 1998-09-10
PRIOR PELING DATE: 1998-09-15
PRIOR PELING DATE: 1998-09-16
PRIOR PELING DATE: 1998-09-17
PRIOR PELING DATE: 1998-09-18
PRIOR PELICATION NUMBER: 60/10171
PRIOR PELING DATE: 1998-09-23
PRIOR APPLICATION NUMBER: 60/10171
PRIOR PELING DATE: 1998-09-23
PRIOR APPLICATION NUMBER: 60/10177
PRIOR PELING DATE: 1998-09-23
PRIOR PELICATION NUMBER: 60/10173
PRIOR PELING DATE: 1998-09-23
PRIOR PELICATION NUMBER: 60/10173
PRIOR PELING DATE: 1998-09-23
PRIOR PE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 60/101916
FILING DATE: 1998-09-24
APPLICATION NUMBER: 60/102207
FILING DATE: 1998-09-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR
PRIOR
PRIOR
                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANI: Wood, William I.

TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic TITLE OF INVENTION: Acids Encoding the Same FEFERENCE: P2830PIC1
CURRENT APPLICATION NUMBER: US/09/946,374
CURRENT FILING DATE: 1998-09-01
PRIOR APPLICATION NUMBER: 60/098716
PRIOR FILING DATE: 1998-09-01
PRIOR FILING DATE: 1998-09-01
PRIOR FILING DATE: 1998-09-01
PRIOR FILING DATE: 1998-09-01
PRIOR APPLICATION NUMBER: 60/09863
PRIOR FILING DATE: 1998-09-02
PRIOR APPLICATION NUMBER: 60/09866
PRIOR FILING DATE: 1998-09-02
PRIOR APPLICATION NUMBER: 60/09956
PRIOR FILING DATE: 1998-09-03
PRIOR FILING DATE: 1998-09-09
PRIOR PRILING DATE: 1998-09-09
                                                                         Gaps
                                                                     0
      Query Match 86.3%; Score 16.4; DB 9; Length 1987; Best Local Similarity 94.4%; Pred. No. 1.4e+02; Matches 17; Conservative 0; Mismatches 1; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Godowski, Paul J.
Grimaldi, Christopher J.
                                                                                                                                                                                                                                                                                                                                      Sequence 76, Application US/09946374
Publication No. US20030073129A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 60/099792
FILING DATE: 1998-09-10
APPLICATION NUMBER: 60/099808
                                                                                                                                                                                        716 AATGTCATCGTCCCCGAG 733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pan, James
Paoni, Nicholas F.
Roy, Margaret Ann
Smith, Victoria
Stewart, Timothy A.
Tumas, Daniel
Watanabe, Colin K.
Williams, P. Mickey
Wood, William I.
                                                                                                                           2 AATGTCATCGTCCCCGGG 19
                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
APPLICANT: Besnoyers, Luć
APPLICANT: Eston, Dan L.
APPLICANT: Ferrara, Napoleone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gurney, Austin L.
Hillan, Kenneth J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fong, Sherman
Gao, Wei-Qiang
Goddard, Audrey
                                                                                                                                                                                                                                                                                                                US-09-946-374-76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR
PRIOR
PRIOR
                                                                                                                           ઠે
                                                                                                                                                                                 셤
```

```
APPLICANT: Pan, James APPLICANT: Pan, James APPLICANT: Pan, James Pont, Nicholas F. TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic TITLE OF INVENTION: Acids Encoding the Same FILE REFERENCE: P2830PL14
CURRENT APPLICATION NUMBER: US/10/006,856A
CURRENT FILING DATE: 2002-05-10
NUMBER OF SEQ ID NOS: 477
SEQ ID NO 76
INSTANT APPLICATION Temoved - See File Wrapper or Palm
SEQ ID NO 76
INSTANT - 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Paoni, Nicholas F.
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic TITLE OF INVENTION: Acids Encoding the Same FILE REFERENCE: P283.09184: CURRENT APPLICATION NUMBER: US/10/006,818A
CURRENT FILING DATE: 2001-12-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Prior Application removed - See File Wrapper or Palm
NUMBER OF SEQ ID NOS: 477
SEQ ID NO 76
LENGTH: 1989
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 16.4; DB 14;
Pred. No. 1.4e+02;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ferrara, Napoleone
Fong, Sherman
Gao, Wei-Qiang
Goddard, Audrey
Godowski, Paul J.
Grimaldi, Christopher J.
Hillan, Kenneth J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 76, Application US/10006818A Publication No. US20030054406A1 GENERAL INFORMATION:
                                                                        S-10-006-856A-76
Sequence 76, Application US/10006856A
Publication No. US20030044841A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                  Godowski, Paul J.
Grimaldi, Christopher J.
Gurney, Austin L.
Hillan, Kenneth J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                715 AATGTCATCGTCCCCGAG 732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 AATGICATCGICCCGGG 19
                                                                                                                                                                                                                                                                                        Ferrara, Napoleone
Fong, Sherman
Gao, Wei-Qiang
Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 94.4%;
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
APPLICANT: Desnoyers, Luc
APPLICANT: Eaton, Dan 1.
                                                                                                                                                                                APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
APPLICANT: Desnoyers, Luc
APPLICANT: Eaton, Dan 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
CORGANISM: Homo sapiens
US-10-006-856A-76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pan, James
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JS-10-006-818A-76
                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                 APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 16.4; DB 10; Length 1989;
Pred. No. 1.4e+02;
0; Mismatches 1; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ELING DATE: 1998-10-08

R APPLICATION NUMBER: 60/103679

R FILING DATE: 1998-10-08

R APPLICATION NUMBER: 60/103711

R FILING DATE: 1998-10-08

R FILING DATE: 1998-10-08

R FILING DATE: 1998-10-14

DR APPLICATION NUMBER: 60/104987

R APPLICATION NUMBER: 60/105000

R FILING DATE: 1998-10-20

R APPLICATION NUMBER: 60/105002

R FILING DATE: 1998-10-20

R FILING DATE: 1998-10-20

R FILING DATE: 1998-10-20

R FILING DATE: 1998-10-20

R PRILING DATE: 1998-10-20

R PRILING DATE: 1998-10-20

R PRILING DATE: 1998-10-20

R PRILING DATE: 1998-10-21

R PRILING DATE: 1998-10-21

R PRILING DATE: 1998-10-22

R PRILING DATE: 1998-10-22

R PRILING DATE: 1998-10-22
                R FILING DATE: 1998-09-29

R APPLICATION NUMBER: 60/102307

R FILING DATE: 1998-09-29

R FILING DATE: 1998-09-30

R PRILING DATE: 1998-09-30

R APPLICATION NUMBER: 60/102487

R FILING DATE: 1998-09-30
                                                                                                                                                                                                                                                                                                                                          R FILING DATE: 1998-09-30
R APPLICATION NUMBER: 60/102571
R FILING DATE: 1998-09-30
R PAPLICATION NUMBER: 60/102684
R FILING DATE: 1998-10-01
R APPLICATION NUMBER: 60/102687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R FILING DATE: 1998-10-07
R APPLICATION NUMBER: 60/103449
R FILING DATE: 1998-10-06
R APPLICATION NUMBER: 60/103633
R FILING DATE: 1998-10-08
R APPLICATION NUMBER: 60/103678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 1998-10-06
APPLICATION NUMBER: 60/103314
FILING DATE: 1998-10-07
APPLICATION NUMBER: 60/103315
FILING DATE: 1998-10-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 60/103395
FILING DATE: 1998-10-07
APPLICATION NUMBER: 60/103396
FILING DATE: 1998-10-07
APPLICATION NUMBER: 60/103401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 1998-10-22
APPLICATION NUMBER: 60/105693
60/102240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 1998-10-01
APPLICATION UNMBER: 60/102965
FILING DATE: 1998-10-02
APPLICATION NUMBER: 60/103258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60/103328
FILING DATE: 1998-10-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 1998-10-26 APPLICATION NUMBER: 60/105694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 1998-10-26
APPLICATION NUMBER: 60/105807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   86.3%;
nilarity 94.4%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 17; Conserva
PRIOR PRIOR
```

슝 a D

ö

```
PRIOR APPLICATION NUMBER: 60/100385
PRIOR FILING DATE: 1998-09-16
PRIOR PLING DATE: 1998-09-15
PRIOR APPLICATION NUMBER: 60/100584
PRIOR PLING DATE: 1998-09-16
PRIOR PLING DATE: 1998-09-17
PRIOR PLING DATE: 1998-09-18
PRIOR PLING DATE: 1998-09-23
PRIOR APPLICATION NUMBER: 60/101741
PRIOR PLING DATE: 1998-09-24
PRIOR PLING DATE: 1998-
                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Pan, James
APPLICANT: Pan, James
APPLICANT: Paoni, Nicholas F.
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: P2830PIC9
                                                                                                                              Gaps
                                                                                                                              ö
                                                                   Length 1989;
                                                                                                                              Indels
                                                          Score 16.4; DB 14; 1
Pred. No. 1.4e+02;
0; Mismatches 1; 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT FILING DATE: 2001-12-06
PRIOR PEPLICATION NUMBER: US/10/006,485A
CURRENT FILING DATE: 2001-12-06
PRIOR PELING DATE: 1998-09-01
PRIOR FILING DATE: 1998-09-01
PRIOR PILING DATE: 1998-09-02
PRIOR PILING DATE: 1998-09-09
PRIOR PILING DATE: 1998-09-10
PRIOR APPLICATION NUMBER: 60/09974
PRIOR PILING DATE: 1998-09-10
PRIOR APPLICATION NUMBER: 60/09976
PRIOR PILING DATE: 1998-09-10
PRIOR APPLICATION NUMBER: 60/09976
PRIOR PILING DATE: 1998-09-10
PRIOR APPLICATION NUMBER: 60/09976
PRIOR PILING DATE: 1998-09-10
                                                                                                                                                                                                                                                                                                                                                   NS-10-006-485A-76

Sequence 76, Application US/10006485A

Publication No. US20030064062A1

GENERAL INFORMATION:
APPLICANT: Baker, Kevin P.
APPLICANT: Botetein, David
APPLICANT: Betesin, David
APPLICANT: Eaton, Dan 1.
APPLICANT: Ferrara, Napoleone
APPLICANT: Gao, Wei-Oiang
APPLICANT: Gao, Wei-Oiang
APPLICANT: Gao, Wei-Ciang
APPLICANT: Goddard, Audrey
APPLICANT: Goddwski, Paul J.
APPLICANT: Grimaldi, Christopher J.
APPLICANT: Hillan, Kenneth J.
                                                                                                                              ..
0
                                                                                                                                                                                                                 2 AATGTCATCGTCCCCGGG 19
                                                                Query Match
Best Local Similarity 94.4%;
Matches 17; Conservative
         US-10-006-818A-76
                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                          셤
```

```
APPLICANT: Paoni, Nicholas F.
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic TITLE OF INVENTION: Acids Encoding the Same FILE REFERED F9281040FE. P9281040FE. P9281040FE. US/10/015,499A
CURRENT FILING DATE: 2001-12-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  and Transmembrane Polypeptides and Nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Prior Application removed - See File Wrapper or Palm NUMBER OF SEQ ID NOS: 477 SEQ ID NO 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 16.4; DB 14;
Pred. No. 1.4e+02;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Pan, James
APPLICANT: Paoni, Nicholas F.
TITLE OF INVENTION: Secreted and Transmembran
TITLE OF INVENTION: Acids Encoding the Same
FILE REFREENCE: PASIOPICA;
CURRENT APPLICATION NUMBER: US/10/013,907A
CURRENT FILING DATE: 2001-12-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 76, Application US/10015499A Publication No. US20030065142A1 GENERAL INFORMATION:
                                                                                                                                                           Sequence 76, Application US/10013907A
Publication No. US20030064925A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Godowski, Paul J.
Grimaldi, Christopher J.
Gurney, Austin L.
Hillan, Kenneth J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Godowski, Paul J.
Grimaldi, Christopher J.
Gurney, Austin L.
Hillan, Kenneth J.
715 AATGICATCGICCCGAG 732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
APPLICANT: Botstein, Luc
APPLICANT: Eaton, Dan 1.
APPLICANT: Ferrara, Napoleone
APPLICANT: Forsy, Sheman
APPLICANT: Gao, Wei-Oiang
APPLICANT: Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                             Ferrara, Napoleone
Fong, Sherman
Gao, Wei-Qiang
Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 94.4%;
Matches 17; Conservative
                                                                                                                                                                                                                                         APPLICANT: Baker, Kevin P. APPLICANT: Botstein, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pan, James
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-013-907A-76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -10-015-499A-76
                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                      R FILING DATE: 1998-09-30.
R APPLICATION NUMBER: 60/102487
R FILING DATE: 1998-09-30
A PPPLICATION NUMBER: 60/102570
R FILING DATE: 1998-09-30
R APPLICATION NUMBER: 60/102571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R FILING DATE: 1998-10-06
R PAPLICATION NUMBER: 60/103314
R PILING DATE: 1998-10-07
R APPLICATION NUMBER: 60/103315
R FILING DATE: 1998-10-07
R APPLICATION NUMBER: 60/103328
R FILING DATE: 1998-10-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R APPLING DATE: 1998-10-06
R APPLICATION NUMBER: 60/103633
R FILING DATE: 1998-10-08
R FILING DATE: 1998-10-08
R FILING DATE: 1998-10-08
R APPLICATION NUMBER: 60/103679
                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 1998-10-01
APPLICATION NUMBER: 60/102965
FILING DATE: 1998-10-02
APPLICATION NUMBER: 60/103258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 1998-10-07
APPLICATION NUMBER: 60/103449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 1998-10-20
APPLICATION NUMBER: 60/105000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 1998-10-26
APPLICATION UNDRER: 60/105807
FILING DATE: 1998-10-27
APPLICATION NUMBER: 60/105881
                           APPLICATION NUMBER: 60/102331
FILING DATE: 1998-09-29
                                                                                                                                                                                                                                                               FILING DATE: 1998-09-30
APPLICATION NUMBER: 60/102684
FILING DATE: 1998-10-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 1998-10-07
APPLICATION NUMBER: 60/103396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 1998-10-07
APPLICATION NUMBER: 60/103401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 1998-10-08
APPLICATION NUMBER: 60/103711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 1998-10-08
APPLICATION NUMBER: 60/104257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/105104
FILING DATE: 1998-10-21
APPLICATION NUMBER: 60/105169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 1998-10-22
APPLICATION NUMBER: 60/105266
FILING DATE: 1998-10-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 60/105693
FILING DATE: 1998-10-26
APPLICATION NUMBER: 60/105694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/106023
FILING DATE: 1998-10-28
                                                                             APPLICATION NUMBER: 60/102484
                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/102687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATION NUMBER: 60/103395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 1998-10-20
PRILOR PR
```

ö

Query Match
Best Local Similarity 94.4%;
Matches 17; Conservative

Prior Application removed - See File Wrapper or Palm NUMBER OF SEQ ID NOS: 477 SEQ ID NO 76 LENGTH: 1989

ö

Gaps

. 0

Score 16.4; DB 14; Length 1989; Pred. No. 1.4e+02; 0; Mismatches 1; Indels 0;

ö

Gaps

```
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic TITLE OF INVENTION: Acids Encoding the Same FILE REFERENCE: P2830PLC45
CURRENT APPLICATION NUMBER: US/10/015,869A
CURRENT FILING DATE: 2002-06-25
Prior Application removed - See File Wrapper or Palm
NUMBER OF SEQ ID NOS: 477
LENGTH: 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Pan, James
APPLICANT: Paoni, Nicholas F.
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic TITLE OF INVENTION: Acids Encoding the Same FILE REFERENCE: P2830P1C20 CURRENT APPLICATION NUMBER: US/10/012,121A CURRENT FILING DATE: 2001-12-07
                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 16.4; DB 14; Length 1989;
Pred. No. 1.4e+02;
0; Mismatches 1; Indels 0;
                                                                                                                                                                                                                                                                             Length 1989;
                                                                                                                                                                                                                                                                                                                  1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Prior Application removed - See File Wrapper or Palm NUMBER OF SEQ ID NOS: 477
SEQ ID NO 76
LENGTH: 1989
                                                                                                                                                                                                                                                                         Score 16.4; DB 14;
Pred. No. 1.4e+02;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 14
US-10-012-121A-76
Sequence 76, Application US/10012121A
Publication No. US20030073810A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 76, Application US/10006116A; Publication No. US20030082626A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Godowski, Paul J.
Grimaldi, Christopher J.
Gurney, Austin L.
Hillan, Kenneth J.
                                                                                                                                                                                                                                                                                                                                                                                  715 AATGTCATCGTCCCGAG 732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           715 AATGTCATCGTCCCCGAG 732
                                                                                                                                                                                                                                                                                                                                                           2 AATGTCATCGTCCCGGG 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 AATGICATCGICCCCGGG 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Desnoyers, Luc
Eaton, Dan 1.
Ferrara, Napoleone
Fong, Sherman
Gao, Wei-Qiang
Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 94.4%;
Matches 17; Conservative C
                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 94.4%;
Matches 17; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ferrara, Napoleone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
APPLICANT: Desnoyers, Luc
APPLICANT: Eaton, Dan 1.
APPLICANT: Ferrara, Napolec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Baker, Kevin P. APPLICANT: Botstein, David
                                                                                                                                                                                         TYPE: DNA
CORGANISM: Homo sapiens
US-10-015-869A-76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; ORGANISM: Homo sapiens
US-10-012-121A-76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-006-116A-76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 15
                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                               ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Pan, James
APPLICANT: Pan, James
APPLICANT: Paoni, Nicholas F.
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: P2830P1C46
                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                               ò
                                                                               Score 16.4; DB 14; Length 1989;
Pred. No. 1.4e+02;
0; Mismatches 1; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Prior Application removed - See File Wrapper or Palm NUMBER OF SEQ ID NOS: 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 16.4; DB 14;
Pred. No. 1.4e+02;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/10/015,393A CURRENT FILING DATE: 2002-06-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 13
US-10-015-869A-76
Sequence 76, Application US/10015869A
Hublication No. US20030073130A1
Hublication No. US20030073130A1
HAPLICANT: Baker, Kevin P.
HAPLICANT: Betein, David
HAPLICANT: Desnoyers, Luc
HAPLICANT: Eaton, Dan 1.
                                                                                                                                                                                                                                                                                                         Sequence 76, Application US/10015393A
Publication No. US20030069179A1
GENERAL INFORMATION:
APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
APPLICANT: Baton, Dan I.
APPLICANT: Ferrara, Napoleone
APPLICANT: Fong, Sherman
APPLICANT: Fong, Sherman
APPLICANT: Gao, Wei-Qiang
APPLICANT: Goddard, Audrey
APPLICANT: Godwski, Paul J.
APPLICANT: Godwski, Paul J.
APPLICANT: Grimaldi, Christopher J.
APPLICANT: Grimaldi, Christopher J.
APPLICANT: Gurney, Austin L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Perrara, Napoleone
Fong, Sherman
Gao, Wei-Qiang
Goddard, Audrey
Godowski, Paul J.
Grimaldi, Christopher J.
                                                                                                                                                                                                            715 AATGTCATCGTCCCGAG 732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 AATGICATCGICCCCGGG 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 AATGTCATCGTCCCCGGG 19
                                                                                    Query Match
Best Local Similarity 94.4%;
Matches 17; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             86.3%;
94.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gurney, Austin L.
Hillan, Kenneth J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pan, James
Paoni, Nicholas F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 86.3
Best Local Similarity 94.4
Matches 17; Conservative
  ; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-015-499A-76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-015-393A-76
                                                                                                                                                                                                                                                                                              US-10-015-393A-76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQ ID NO 76
LENGTH: 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
APPLICANT:
                                                                                                                                                                     δ
                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
```

ö

Gaps

```
PRIOR PEPLICATION NUMBER: 00/101743
PRIOR FILING DATE: 1998-09-24
PRIOR FILING DATE: 1998-09-24
PRIOR APPLICATION NUMBER: 60/101916
PRIOR APPLICATION NUMBER: 60/10207
PRIOR PELING DATE: 1998-09-29
PRIOR FILING DATE: 1998-09-29
PRIOR FILING DATE: 1998-09-29
PRIOR PELING DATE: 1998-09-29
PRIOR FILING DATE: 1998-09-29
PRIOR PELING DATE: 1998-09-29
PRIOR PELING DATE: 1998-09-29
PRIOR PELING DATE: 1998-09-30
PRIOR PELING DATE: 1998-00-30
PRIOR PELING DATE: 1998-10-01
PRIOR PELING DATE: 1998-10-01
PRIOR PELING DATE: 1998-10-01
PRIOR PELING DATE: 1998-10-01
PRIOR PELING DATE: 1998-10-02
PRIOR PELING DATE: 1998-10-07
                                                                    PRIOR APPLICATION NUMBER: 60/100111
PRIOR APPLICATION NUMBER: 60/100848
PRIOR FILING DATE: 1998-09-17
PRIOR FILING DATE: 1998-09-17
PRIOR FILING DATE: 1998-09-18
PRIOR PELICATION NUMBER: 60/100849
PRIOR PILING DATE: 1998-09-17
PRIOR PELING DATE: 1998-09-17
PRIOR PELING DATE: 1998-09-17
PRIOR PILING DATE: 1998-09-17
PRIOR PILING DATE: 1998-09-18
PRIOR PILING DATE: 1998-09-23
PRIOR PILING DATE: 1998-09-24
R FILING DATE: 1998-09-17

R FILING DATE: 1998-09-17

R FILING DATE: 1998-09-17

R PELING DATE: 1998-09-17

R APPLICATION NUMBER: 60/100711

R APLICATION NUMBER: 60/100849

R FILING DATE: 1998-09-18

R FILING DATE: 1998-09-18

R FILING DATE: 1998-09-18

R FILING DATE: 1998-09-17

R APPLICATION NUMBER: 60/100919

R FILING DATE: 1998-09-17

R APPLICATION NUMBER: 60/100919

R FILING DATE: 1998-09-17

R FILING DATE: 1998-09-17

R FILING DATE: 1998-09-17

R FILING DATE: 1998-09-17
          APPLICANT: FORM STREAMS
APPLICANT: FORM STREAMS
APPLICANT: GOAD AND ALGERY
APPLICANT: GOAD ALGERY
APPLICANT: BOAL ALGERY
APPLICANTON WINDER: BOAL ALGERY
APPLICANTO
```

APPLICATION NUMBER: 60/103315

```
Score 16.4; DB 14; Length 1989;
Pred. No. 1.4e+02;
0; Mismatches 1; Indels 0;
PRIOR APPLICATION NUMBER: 60/103328
PRIOR PILING DATE: 1998-10-07
PRIOR PAPLICATION NUMBER: 60/103401
PRIOR PILING DATE: 1998-10-06
PRIOR PELING DATE: 1998-10-06
PRIOR PELING DATE: 1998-10-08
PRIOR PELING DATE: 1998-10-20
PRIOR PELING DATE: 1998-10-22
PRIOR PELING DATE: 1998-10-26
PRIOR PELING DATE: 1998-10-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 60/105882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/106023
FILING DATE: 1998-10-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 94.4%;
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 1998-10-27
```

715 AATGTCATCGTCCCCGAG 732 AATGTCATCGTCCCCGGG 19 ð d

ö

Gaps

ö

Search completed: April 12, 2005, 09:03:40 Job time : 17.1055 secs

THIS PAGE BLANK (USPTO)

ÿ

```
April 11, 2005, 19:46:51 ; Search time 325.942 Seconds (without alignments) 7660.750 Million cell updates/sec
                                                                                                                                                                                       US-09-979-558A-1
1526
1 tttgatcatggctccagatt.....acctgcggctggatcacctc 1526
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                 1202784 seqs, 818138359 residues
                                                                       OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                  IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                       Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                Searched:
                                                                                                            Run on:
```

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries Minimum DB seq length: 0 Maximum DB seq length: 200000000

2405568

Total number of hits satisfying chosen parameters:

Issued Patents NA:\*

1: /cgn2\_6/ptodata/1/ina/5A\_COMB.seq:\*
2: /cgn2\_6/ptodata/1/ina/5B\_COMB.seq:\*
3: /cgn2\_6/ptodata/1/ina/6A\_COMB.seq:\*
4: /cgn2\_6/ptodata/1/ina/6B\_COMB.seq:\*
5: /cgn2\_6/ptodata/1/ina/PCTUS\_COMB.seq:\*
6: /cgn2\_6/ptodata/1/ina/PCTUS\_COMB.seq:\* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Description	Sequence 41, Appl	27,	1,	'n	ı,	Sequence 1, Appli	1,	٦,	ij,	2	'n	Sequence 3, Appli	15	Sequence 2, Appli	158	158	33	7,7		242,	402,	6, 1	14,	'n	4	'n	Sequence 1, Appli
SUMMARIES	ID	US-09-596-002-41	US-08-299-810A-27	US-09-793-920A-1	US-09-821-016-5	US-09-745-476-1	US-09-748-205-1	US-09-951-720-1	US-10-411-319-1	US-10-105-305-1	US-10-266-787-5	US-08-114-695A-1	US-09-726-774-3	US-08-757-653-158	US-09-465-355-2	US-08-520-946-158	US-09-655-378A-158	US-09-548-998E-33	US-09-726-774-2	US-09-492-709A-89	US-09-492-709A-242	US-09-492-709A-402	US-08-114-695A-6	US-09-726-774-14	US-10-278-942-1	US-09-726-774-4	US-09-726-774-5	US-09-228-184-1
	DB	4	-	4	4	4	4	4	4	4	4	7	4	~	٣	٣	4	4	4	4	4	4	٦	4	4	4	4	m
	Length	269223	1485	1501	1501	1501	1501	1501	1501	1501	1501	1542	1467	1542	1542	1542	1542	1542	1541	1549	1549	1549	1518	1487	1506	1500	1544	1540
de	Query Match	79.4	78.3	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	70.5	70.2	70.1	70.1	70.1	70.1	70.1	9.69	69.3	69.3	69.3	0.69	69.0	68.1	67.6	67.2	8.99
	Score	1211	1195	1098.6	1098.6	1098.6	1098.6	1098.6	1098.6	1098.6	1098.6	1076	1070.8	1069.2	1069.2	1069.2	1069.2	1069.2	1062.6	1058.2	1058.2	1058.2	1053.6	1052.4	1039.2	1031.2	1025.2	1019.8
	Result No.	, 1	73	m	4	S	ω	7	80	σ	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27

Sequence 1, Appli Sequence 2, Appli
US-09-967-376-1 US-09-934-868-81 US-09-557-884-1 US-09-557-884-1 US-09-557-884-1 US-09-643-990A-1 US-09-643-990A-1 US-09-643-990A-1 US-09-726-774-1 US-09-114-695A-7 US-09-342-579-1 US-09-617-854A-1 US-09-617-854A-1 US-09-617-854A-1 US-09-617-854A-1
4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
1540 640681 1830121 1830121 1830121 18480121 1450 1450 1473 1473 1451 1451 1451
6666 6666 6666 6667 6667 6667 667 667 6
888888888888888888888888888888888888888
10119.8 10016.4 10018.8 10008.
200 300 300 300 300 444 440 447 447 447 447 447 447 447 4
υυ

## ALIGNMENTS

RESULT 1  US-09-596-002-41/C  Sequence 41, Application US/09596002  Sequence 41, Application US/09596002  Sequence 41, Application US/09596002  Sequence 41, Application US/09596002  GENERAL INFORMATION:  APPLICANT: Barg, Kim, L.  APPLICANT: Berg, Kim, L.  TITLE OF INVENTION: UNCLECTIOE SEQUENCES OF MORAXELLA CATARRHALIS GENOME  FILE REFERENCE: PM.0008-4 US  CURRENT APPLICATION NUMBER: US/09/596,002  CURRENT PILING DATE: 2000-06-16  PRIOR APPLICATION NUMBER: 60/140,121  PRIOR PLING DATE: 1999-06-18  NUMBER OF SEQ ID NOS: 41  SOFTWARE: PERL Program  SEQ ID NO 41  LENGTH: 269223  TYPE: DNA  ORGANISM: Moraxella catarrhalis  FRATURE:  NAME/KEY: misc_feature  NAME/KEY: misc_feature  OTHER INFORMATION: Incyte template ID NO. 6632636 41  PUBLICATION INFORMATION:  US-09-596-002-41	Query Match 79.4%; Score 1211; DB 4; Length 269223; Best Local Similarity 90.6%; Pred. No. 0; Matches 1361; Conservative 0; Mismatches 127; Indels 15; Gaps 6;	OY 30 GGCGGCAGGCTTAACACATGCAAGTCGAAACGATGATGATAGCTTGCTATTAGGCGTC 89	OY 90 GAGCNGCCGGACGGGTAATACTTAGGAATCTACCTAGTAGTGGGGGATAGCTCGGG 149	OY 150 GAAACTCGAATTAATACCGCATACGTCTACGGGGGGGAAAGCAGGGGNTCATTAGACCTTGC 209	QY         210 GCTATTAGATGAGCCTAAGTCGGATTAGCTAGAGGGTAAAAGGCCTACCATGGGGA         269           Db         92784 GCTATTAGATGAGCCTAAGTCGGATTAGCTGGTGGGGTAAAAGGCCTACCAAGGGGA         92725	QY         270 CGATCTGTAGCTCTGAGATGATCAGCCACACCGGACTGAGACCTGAGACACGCCCGGAC 329           Db         92724 CGATCTGTAGCTGGTCTGAGAGGATGATCAGCCACACTGGGACTGAGACACGCCCCAGAC 92665
--	--	---	--	---	--	--

```
91525 GTCGATGACTGGGGTGAAGTCGTAACAAGGTAGGGGAACCTGCGGCTGGATCAC 91466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       57 GCGGACGGGTGAGTAATGCTTAGGAATCTGCCTAGTAGTGGGGGATAACTTGGGGAAACC 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      96 CCGGACGGGTGAGTAATACTTAGGAATCTACCTAGTAGTGGGGGGATAGCTCGGGGAAACT
                                                       GTCGATGACTGGGGTGAAGTCGTAACAAGGTAGCCGTAGGGGAACCTGCGGCTGGATCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          117 CAAGCTAATACCGCATACGACCTACGGGTGAAAGGGGG----CTTTTAGCTCTCGCTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    36 AGCTTAACACATGCAAGTCGAGCGGAAACGATGATAGCTTGCTATTAGGCGTCGAGCNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGAATTAATACCGCATACGTCTACGGGAGAAAGCAGGGGNTCATTAGACCTTGCGCTATT
                                                                                                                                                                                                                                              Sequence 27, Application US/08299810A
Patent No. 5721097
GENERAL INFORMATION:
APPLICANT: Rossau, Rudi
APPLICANT: Van Heuverswyn, Hugo
TITLE OF INVENTION: PYERIDIZATION PROBES FOR THE
TITLE OF INVENTION: DETECTION OF BRANHAMELLA CATARRHALIS STRAINS
NUMBER OF SEQUENCES: 28
CORRESPONDENCE ADDRESS:
ADDRESSEE: Merchant & Gould
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 1; Length 1485;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                78.3%; Score 1195; DB 1;
90.6%; Pred. No. 0;
iive 0; Mismatches 128;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC comparible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #
SOFTWENT APPLICATION DATA:
APPLICATION NUMBER: US/08/299, #10A
FILING DATE: 0.-SEP-1994
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Hillson, Randall A.
REGISTRATION NUMBER: 31,838
REPERENCE/DOCKET NUMBER: 8076.70-US-WO
TELECOMUNICATION:
TELECHONE: 612-332-5300
                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE: Merchant & Gould
STREET: 3100 No. 5721097west Center
CITY: Minneapolis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Branhamella catarrhalis
IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: 612-332-9081
INFORMATION FOR SEQ ID NO: 27:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1485 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16S rRNA Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
                                                                                                                                                              CTC 91463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
Matches 1352; Conserv
                                                                                                                            CTC 1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   55402
                                                                                                                                                                                                               RESULT 2
US-08-299-810A-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-299-810A-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH:
                                                       1464
                                                                                                                            1524
                                                                                                                                                              91465
                    91584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                a
                                                     ð
                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                            92245
                                                                                                                                                                              92485
                                                                                                                                                                                                                                                  92425
                                                                                                                                                                                                                                                                                                                    92365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                92185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    92125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             92064 ACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGA 92005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     91704 regradrecegarrecagrerecaacrecacrecareaagreceaareceragradrece 91645
                                                                                                                                                                                                                                                                                                                                                                                          92305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      92124 TAGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCGC 92065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           91825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                91765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         91764 TACAATGGTTGGTAGGTTGCTACAGGGATGTGATGTTGATGTTGAAAAGGCCAA 91705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CATACACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTGC 1043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGGCTGTCGTCGTCGTCGTCGTGAGATGTTGGGTTAAGTCCCGCAACGAGCGCAACCC 1103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TIGICCTIAGITACCAGCACTICGGGTGGGAACTCTAAGGATACTGCCAGTGACAAACTG 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGGAAGGCGGGGACGACGTCAAGTCATGGCCCTTACGACCAGGGCTACACACGTGC 1223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGATCAGAATGCCGCGGTGAATACGTTCCCGGGCCTTGTACACACCGCCCGTCACACCAT 1403
                                                                                                                                                                                                                 563
                                                                                                                                                                                                                                                                                                                                                                                                                             743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1404 GGGAGTTGATTGCACCAGAAGTGGTTAGCCTAACTTAGTGAGGGCGATCACCACGGTGTG 1463
                                                                         443
                                                                                                                                           503
                                                                                                                                                                                                                                                                                     623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         923
                                                                                                                                                                                                                                                                                                                                                                        T-CTACGGGAGGCAGCAGTGGGGAAT----ATTGGACAATGGNGGGAACCCTGATCCAG
                       92664 TCCTACGGGAGGCAGCAGTGGGGAATATTGGATTGGACAATGGGCGAAAGCCTGATCCAG
                                                                     CCATGCCGCGTGTGTGAAAAAGGCCTTTTGGTTGTAAAGCACTTTAAAGCAGTGAAGAAGA
                                                                                                 92604 CCATGCCGCGTGTGTGTGTGTTTTGGTTGTAAAGCACTTTTAAGTGGGGAGGAAAA
                                                                                                                                       444 CTCTTCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATAAGCACCGGCTAACTCT
                                                                                                                                                                          92544 GCTTATGGTTAATACCCATAAGCCCTGACGTTACCCACAGAATAAGCACCGGCTAACTCT
                                                                                                                                                                                                             GTGCCAGCAGCGGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAA
                                                                                                                                                                                                                                                92484 GTGCCAGCAGCCGCGGTAATACAGAGGGTGCAAGCGTTAATCGCAATTACTGGGCGTAAA
                                                                                                                                                                                                                                                                                 GCGAGCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCTGGGAACTGC
                                                                                                                                                                                                                                                                                                                    92424 GCGCGCGTAGGTGGTTATTTAAGTCAGATGTGAAAGCCCCGGGCTTAACCTGGGAACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                         AATGCGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCATCATACTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACTGAGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              92244 ACTGAGGTGCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AACGATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCAGCTAACGCAATAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AACGATGTCTACCAGTCGTTGGGTCTTTTAAAGACTTAGTGACGCAGTTAACGCAATAAG
                                                                                                                                                                                                                                                                                                                                                       ATCTGAAACTGTTAGGCTAGAGTAGGTGAGGGAAGTAGAATTTCAGGTGTAGCGGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        91884 TITICCTTAGTTACCAGCGACTCGGTCGGGAACTCTAAGGATACTGCCAGTGACAACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            91824 GAGGAAGGCGGGGACGACGTCAAGTCATGGCCCTTACGACCAGGGCTACACGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TACAATGGTAGGTACAGAGGCAGCTACACAGCGATGTGATGCGAATCTCAAAAAGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TAGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGAGGAGAACTTACCTGGTCTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCGTAGTCCAGATTGGAGTCTGCAACTCGACTCCATGAAGTAGGAATCGCTAGTAATCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      91644 AGATCAGAATGCTGCGGTGAATACGTTCCCGGGCCTTGTACACACGCCCGTCACACCAT
                                                                     384
                                                                                                                                                                                                                                                                                                                                                                                                                         684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         924
330
                                                                                                                                                                                                                                                                                   564
                                                                                                                                                                                                                                                                                                                                                       624
                                                                                                                                                                                                                                                                                                                                                                                        92364
                                                                                                                                                                                                                                                                                                                                                                                                                                                            92304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    92184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                92004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1284
                                                                                                   셤
                                                                                                                                                                                                                                             엄
                                                                                                                                                                                                                                                                                                         요
                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                   ò
                                                                                                                                       ò
                                                                                                                                                                   g
                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             음
장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ∂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              õ
```

m

```
CAGCAGCCGCGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCGA 567
                                                                                                                                                                                                                                DB 4;
                                                                                                                                                                                                                                Score 1098.6;
Pred. No. 0;
                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                             strain
                                                                                                                                                                                                            ; ORGANISM: Pseudomonas jessenii 161
US-09-793-920A-1
                                                                                                                                                                                                                                Query Match
Best Local Similarity 85.9%;
Matches 1287; Conservative (
                                                                                                                                                                                                1501
       1252
                                 1312
                                              1415
                                                            1372
                                                                        1475
                                                                                                                                                                                                                                                                                                                                                                                                           304
                     1355
                                                                                                                                                                                                                                                           30
                                                                                                                                                                                                                                                                                     90
                                                                                                                                                                                                                                                                                                                150
                                                                                                                                                                                                                                                                                                                                          209
                                                                                                                                                                                                       TYPE: DNA
                                                                                                                                                                                                                                                                        σ
                                                                                                                                                                                                                                                                                                                                                                    269
                                                                                                                                                                                                                                                                                                                                                                                                                         388
                                                                                                                                                                                                                                                                                                                                                                                                                                                    448
                                                                                                                                                                                                                                                                                                  67
                                                                                                                                                                                                                                                                                                                                                                                               329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              508
                                                                                                                                                                                               LENGTH:
   Q
                 6 B 6
                                                         엄
                                                                        δ
                                                                                  d
                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                         음 상
                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                               S 8
                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                    101
                                                                                                                                                                                                                                                                                                                                                                                 1114
                                                                                                                                                                                                                                                                                                                                                                                              101
                                                                                                                                                                                                                                                                                                                                                                                                           1174
                                                                                                                                                                                                                                                                                                                                                                                                                        1131
                                                                                                                                                                                                                                                                                                                                                                                                                                      1234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1294
                                                                                                                                                                                                                                                                                                                                                        1054
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1251
                                                                                            412
                                                                                                                                                                                                                                                                                   831
                          334
                                       292
                                                     394
                                                                               454
                                                                                                          514
                                                                                                                      472
                                                                                                                                    574
                                                                                                                                                531
                                                                                                                                                               634
                                                                                                                                                                                                                                                                        874
                                                                                                                                                                           591
                                                                                                                                                                                         694
                                                                                                                                                                                                      651
                                                                                                                                                                                                                   754
                                                                                                                                                                                                                               711
                                                                                                                                                                                                                                              814
                                                                                                                                                                                                                                                          771
                                                                                                                                                                                                                                                                                                   934
                                                                                                                                                                                                                                                                                                                              994
                                                                                                                                                                                                                                                                                                                                          951
                                                                                                                                                                                                                                                                                                               891
-CTAC
                                                                                                                                  GTAGCTGGTCTGAGAGGATGATCAGCCACACTGGGACTGAGACACGGCCCAGACTCCTAC
                                                  GGGAGGCAGCAGTGGGGAATATTGGACAATGGNGGAACCTGATCCAGCCATGCCGCGT
                                                           GGGAGGCAGCAGTGGGGGAATATTGGACAATGGGCGAAAGCCTGATCCAGCCATGCCGGGT
                                                                                     GTGTGAAGGCCTTTTGGTTGTAAAGCACTTTAAGTTGGGAGGAAAAGCTTATGGTTA
                                                                                                                                                                      TGGTTATTTAAGTCAGATGTGAAAGCCCCGGGCTTAACCTGGGAACTGCATCTGATACTG
                                                                                                                                                                                                                  ATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCATCATACTGACACTGAGGCTCG
                                                                                                                                                                                                                          AAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACGATGTCTA
                                                                                                                                                                                                                                                   CTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCAGCTAACGCAATAAGTAGACCGCCTG
                                                                                                                                                                                                                                                                             CAGCTCGTGTCGTGAGATGTTGGGTTAAGTCCCGCAACGAGGGGAACCCTTGTCCTTAGT
                                                                              GTGTGAAGAAGGCCTTTTGGTTGTAAAGCACTTTAAGCAGTGAAGAAGACTCTTCGGTTA
                                                                                                        ATACCCGGGGACGATGACATTAGCTGCAGAATAAGCACCGGCTAACTCTGTGCCAGCAGC
                                                                                                                TGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCTGGGAACTGCATCTGAAACTG
                                                                                                                                                                                                                                                                                                  GGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCCGCACAAGCGGTGG
                                                                                                                                                                                                                                                                                                                             AGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACATACACAGAA
                                                                                                                                                                                                                                                                                                                                                      TCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTGCATGGCTGTCGT
                                                                                                                                                                                                                                                                                                                                                              TCTTGCAGAGATGCGAGAGTGCCTTCGGGAATTCACATACAGGTGCTGCATGGCTGTCGT
                                                                                                                                                                                                                                                                                                                                                                                        CAGCTCGTGTCGTGAGATGTTGGGTTAAGTCCCGCAACGAGCGCAACCCTTTTCCTTAGT
                                                                                                                                                                                                                                                                                                                                                                                                          TACCAGCACTTCGGGTGGGAACTCTAAGGATACTGCCAGTGACAAACTGGAAGGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                        TACCAGCGACTCGGTCGGGAACTCTAAGGATACTGCCAGTGACAAACTGGAGGAAGGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                       1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1132
            173
                          276
                                      233
                                                    335
                                                                 293
                                                                               395
                                                                                           353
                                                                                                         455
                                                                                                                      413
                                                                                                                                   515
                                                                                                                                                473
                                                                                                                                                              575
                                                                                                                                                                          532
                                                                                                                                                                                        635
                                                                                                                                                                                                     592
                                                                                                                                                                                                                               652
                                                                                                                                                                                                                                             755
                                                                                                                                                                                                                                                          712
                                                                                                                                                                                                                                                                                    772
                                                                                                                                                                                                                                                                                                               832
                                                                                                                                                                                                                                                                                                                                                                    952
                                                                                                                                                                                                                                                                                                                                                                                1055
                                                                                                                                                                                                                                                                                                                                                                                              1012
                                                                                                                                                                                                                                                                                                                                                                                                           1115
                                                                                                                                                                                                                                                                                                                                                                                                                                     1175
                                                                                                                                                                                                                   695
                                                                                                                                                                                                                                                                       815
                                                                                                                                                                                                                                                                                                  875
                                                                                                                                                                                                                                                                                                                             935
                                                                                                                                                                                                                                                                                                                                          892
                                                                                                                                                                                                                                                                                                                                                       995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1235
          g
                     ት 8
                                                ò
                                                            Q
                                                                          6 8 6 8 6
                                                                                                                                           6 B. 6 B
                                                                                                                                                                                                 임 상 임
                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                          8 6 8
                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                              6 B
```

RESULT 3

US-09-793-920A-1

US-09-793-920A-1

Sequence 1, Application US/09793920A

Patent No. 6479621

GENERAL INFORMATION:

APPLICANT: Canon Inc.

TITLE OF INVENTION: Polyhydroxyalkanoate containing 3-hydroxythienylalkanoic acid as TITLE OF INVENTION: monomer unit, and method for producing the same.

FILE REFERENCE: 4396021

CURRENT APPLICATION NUMBER: US/09/793,920A

CURRENT APPLICATION NUMBER: US/09/793,920A

CURRENT FILING DATE: 2001-02-28

NUMBER OF SEQ ID NOS: 1

SEQ ID NO 149 268 183 243 328 244 ACGATCCGTAACTGGTCTGAGAGGATGATCAGTCACACTGGAACTGAGACCAGGACGGTCCAGA 303 387 363 447 423 507 483 99 CTGCGGTGAATACGTTCCCGGGCCTTGTACACACGCCGCCGTCACACCACCATGAATGGTTGATC GAGCNGCCGGACGGGTGAGTAATACTTAGGAATCTACCTAGTAGTGGGGGATAGCTCGGG CGCTATTAGATGAGCCTAAGTCGGATTAGCTAGATGGTGGGGTAAAGGCCCTACCATGGCG GCACCAGAAGTGGTTAGCCTAACTTAGTGAGGGCGATCACCACGGTGTGGTCGATGACTG GAAACTCGAATTAATACCGCATACGT-CTACGGGAGAAAGCAGGGGNTCATTAGACCTTG GGCGGCAGGCTTAACACATGCAAGTCGAGCGGAAACGATGATAGCTTGCTATTAGGCGTC ACGATCTGTAGCTGGTCTGAGAGGATGATCAGCCACACCGGGACTGAGACACGGCCCGGA 364 GCCGCGTGTGTAAGAAGGTCTTCGATTGTAAAGCACTTTAAGTTGGGAGGAAGGCAT TAACCTAATACGTTAGTGTTTTGACGTTACCGACAGAATAAGCACCGGCTAACTCTGTGC GCCGCGTGTGTGAAGAAGACCCTTTTGGTTGTAAAGCACTTTAAGCAGTGAAGAAGACTCT TCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATAAGCACCGGCTAACTCTGTGC GGGTGAAGTCGTAACAAGGTAGCCGTAGGGGAACCTGCGGCTGGATCACCTC 1526 6 Length 1501; 1431 GGGTGAAGTCGTAACAAGGTAGCCGTAGGGGAA-CTGCGGCTGGATCACCTC 202; Indels

```
RESULT 4
US-09-821-016-5
; Sequence 5, Application US/09821016
; Patent No. 6485951
; GENERAL INFORMATION:
; APPLICANT: CANON INC.
```

Enzyme Same 747 149 208 123 183 268 243 328 387 363 447 423 507 483 543 627 867 AIGTCAACTAGCCGTTGGGAGCCTTGAGCGCTTAGTGGCGCAGCTAACGCTTAAGTTGA 843 CAGCAGCCGCGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCGA 567 687 604 AAAACTGACAAGCTAGAGTATGGTAGAGGGTGGTGGAATTTCCTGTGTAGCGGTGAATG, 663 723 807 783 99 the G---CGGCGGACGGGTGAGTAATGCCTAGGAATCTGCCTGGTAGTGGGGGACAACGTCTC GAGCNGCCGGACGGGTGAGTAATACTTAGGAATCTACCTAGTAGTGGGGGATAGCTCGGG GAAACTCGAATTAATACCGCATACGT-CTACGGGAGAAAGCAGGGGNTCATTAGACCTTG CCCTATTAGATGAGCCTAAGTCGGATTAGCTAGATGGTGGGGGTAAAGGCCTACCATGGCG cecharcadargacchaggressarrascrastrissrsassararascreaceasses CAGCAGCCGCGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAAGCGC GAAAGGGACGCTAATACCGATACGTCCTACGGGAGAAAGCAGGGGACCTTCGGGCCTTG CTCCTACGGGAGGCAGCAGTGGGGGAATATTGGACAATGGGCGAAAAGCCTGATCCAGCCAT CGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCATCATACTGACACTG AGGTGCGAAAGCGTGGGGGAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACG GGCGGCAGGCTTAACACACATGCAAGTCGAACGGAAACGATGATAGCTTGCTATTAGGCGTTC ACGATCTGTAGCTGGTCTGAGAGGATGATCAGCCACACACGGGACTGAGACACGGCCCGGA CT-CTACGGGAGGCAGCAGTGGGGAATATTGGACAATGGNGGGAACCCTGATCCAGCCAT GCCGCGTGTGTAAGAAGGCCTTTTGGTTGTAAAGCACTTTTAAGCAGTGAAGAAGACTCT TCGGTTAATACCCCGGGGACGATGACATTAGCTGCAGAATAAGCACCGGCTAACTCTGTGC TAACCTAATACGTTAGTGTTTTGACGTTACCGACAGAATAAGCACCGGCTAACTCTGTGC GCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCTGGGAACTGCATCT GAAACTGTTAGGCTAGAGTAGGTGAGGGGAAGTAGAATTTCAGGTGTAGCGGTGAAATG AGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACG ATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCAGCTAACGCAATAAGTAGA Encoding 6 Length Gene Indels and 4, Score 1098.6; DB 4; Pred. No. 0; ); Mismatches 202; Synthase BP-7376 TITLE OF INVENTION: Polyhydroxyalkanoate & FILE REFERENCE: 4051021
CURRENT APPLICATION NUMBER: US/09/821,016
CURRENT FILING DATE: 2001-03-30
NUMBER OF SEQ ID NOS: 11
SOFTWARE: Microsoft Word
SEQ ID NO 5
LENGTH: 1501 TYPE: DNA ORGANISM: Pseudomonas jessenii P161 ; 0; Query Match
Best Local Similarity 85.9%;
Matches 1287; Conservative ; FEATURE: US-09-821-016-5 30 σ 90 67 150 124 209 184 244 329 388 424 484 268 544 628 664 748 724 808 269 304 364 448 508 688 FEATURE: ò 9 à 셤

67 GCGGCGGACGGGTGAGTAATGCCTAGGAATCTGCCTGGTAGTGGGGGACAACGTCTC 123 150 GAAACTCGAATTAATACCGCATACGT-CTACGGGAGAAAGGGGGGNTCATTAGACCTTG 208 124 GAAAGGGACGCTAATACCTCTAACGGAGAAAAAAAGGAGGAACTATCGGCCTTG 183	GCTATTAGATGAGCCTAAGTCGGATTAGCTAGAGAGGGGTAAAGCCTTCGGGCCTTG 18 CGCTATTAGATGAGCCTAAGTCGGATTAGCTAGATGGTGGGGTAAAGGCCTACCATGGCG 26 CHIIII	269 ACGATCTGTAGCTGTGAGGATGATGACCACACCGGGACTGAGACACGGCCCGGA 328		364 GCGCGTGTGTGAAGAAGTCTTCGGATTGTAAAGCACTTTAAGTTGGGAAGAAGAGCGCT 423 448 TCGGTTAATACCCGGGACGAGACATTAGCTGCAGAATAAGCACCGGCTAACTTGTGC 507		484 CAGCAGCGGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCGC 543 568 GCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCTGGGAACTGCATCT 627	GCGTAGGTGGTTGTTAAGTTGGATGTGAAAGCCCCGGGCTCAACCTGGGAACTGCATTC GAAACTGTTAGGCTAGAGTGAGAGGAAGTAGAATTTTCAGGTGTAGGGGTGAAATG	604 AAAACTGACAAGCTAGAGTATGGTAGAGGTGGGGATTTCCTGTGTAGCGGTGAAATG 663 688 CGTAGAGATCTGAAGGAATACCGATGGCGAGCTTCCTGGCATCATACTGACACTG 747	748 AGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCTGGTAGTCCACGCCGTAAACG 807 724 AGGTGCGAAAGCGTGGGAACAACAGGATTAGATACCTTGGTAGTCCACGCCGTAAACG	ATGICTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCGGCTAACGCAATAAGTAGA 8	CCGCCTGGGGGGGCCGCAAGGTTAAAACTCAAATGAATGA	8 GCGGTGGAGCATGTGGTTTGATTCGATGCGAGGAGCCGGAGGAGCCTTGCTTG	988 CACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTGCATGG 1047	1048 CTGTCGTCAGCTCGTGAGATGTTGGGTTAAGTCCCGCAACGAGCGCAACCCTTGT 1107 	1108 CCTTAGTTACCAGCAC-TTCGGGTGGGAACTCTAAGGATACTGCCAGTGACAAACTGGGG 1166	1167 GAAGGCGGGGCGACGTCAAGTCATCATGGCCCTTACGACCAGGCTACACACGTGCTAC 1226 
4	8 & 8	8 8 8	a &	g &	g ç	ବି ଦି	a &	a & a	<i>∂</i> 8	<b>%</b> 8 %	3 8 8	à a	& 8	ò 8	λo qa	Уб
Oy       868       CCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCACAA       927         Db	904 GCGGTGGAGCATGTGGTTTAATTCGAAGCAACGCGAAGAACCTTACCAGGCCTTGACTCGAGCATCGAAGAACCTTACCAGGCCTTGACATCGAGCAACGCGAAGAACTTTGAATTCGAAGAGAATTGTGAATTGTGAATTCTGGAATTGTGATACAGGTGCTTGG	Db   964 CARTGAACTTTCCAGAGATGGATGGTTCCGGAACATTGAGACAGGTGCTGCATGG 1023	CCTTAGTTACCAGCAC-TTCGGGTGGGAACTCTAAGGATACTGCCAGTGACAAACTGGAG 	Oy 1167 GAAGGGGGGGGCGTCAAGTCATCATGGCCCTTACGACCAGGGCTACACACGTGCTAC 1226 		<pre>Qy 1287 TAGTCCAGATTGGAGTCTGCAACTCCATGAAGTAGGAATCGCTAGTAATCGCGGA 1346                                       </pre>	1347 TCAGAATGCCGGGTGAATACGTTCCCGGGCCTTGTACACCGCCCGTCACCACCATGGG 140.	Qy     1407 AGTTGATTGCACCAGAAGTGGTTAGCCTAA-CTTAGTGAGGGGGATCACCACGGTGTGT 1465       L	Db 1444 TCATGACTGAGGTGAAGTCGTACCAAGGTAGGGGAACCTGCGGCTGGATCAC 1501	RESULT 5 US-09-745-476-1 ; Sequence 1, Application US/09745476 ; Patent No. 6521429 ; GENERAL INFORMATION: ; APPLICANT: CANON INC.	; TITLE OF INVENTION: Preparation of Poly-hidroxyalkanoic Acid; FILE REFERENCE: 4351008 ; CURRENT APPLICATION NUMBER: US/09/745,476 ; CURRENT FILE OF THE POLYTIC OF THE PO		Ś	Query Match 72.0%; Score 1098.6; DB 4; Length 1501; Best Local Similarity 85.9%; Pred. No. 0; Matches 1287; Conservative 0; Mismatches 202; Indels 9; Gaps 6;	CCAAGTCGAGGGGAAACGATGATAGGTTGCTATTAGGCGTC 89	90 GAGCAGGGGGGGGGAATAAGAATCTTAGGAAGTAGTAGGGGGGGATAGTCGGGG

	AAAACTGACAAGCTAGATATGCTAGAGGGTGGTGAATTTCCTGTGTAGCGTGAAATG CGTAGAGATCTCAAGGAATACCGATGGCGAAGGCAGCTTCCTGTGTAGCGTGAAATG CGTAGAATTTCCTGTGGTAGCGAAGGCGAACAGCTTCCTGGCATCATACTACACACTG [		CACAGAATCTTGTAGAGTACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTGCTGCTGGTGCTGCTGCTGCTGCTGCTGCTGCTG	1108   CCTTAGTTACCAGCAC-TTCGGGTAGAAACTCTAAGGATACTGCCAGTGACAAACTGGAG   1166	1227 AATGGTAGGTACAGAGGCAGCTACACAGCGATGTGATGCGAATCTCAAAAAGCCTATCG 1286	1347 TCAGAATGCCGCGGTGAATACGTTCCCGGGCCTTGTACACCCCGCCCG	L 7
8 8 8 8 8	8 6 8 6 8 7	6 6 6 6 6 6	oy ob	8 6 8	ò a ò a	8 8 8 8 8 8 ·	RESULT
Qy         1227 AATGGTAGGTACAGGGCAGCTACACAGGGATGTGATGCGAATCTCAAAAAGCCTATCG         1286           Db         1204 AATGGTACAGAGGGTTGCCAAGCCGCGAGGTGGAGCTAATCCCACAAAACCGATCG         1263           Qy         1287 TAGTCCAGATTGGAGTCTGCAACTCGATGAAGTAGGAATCGCTAGTAATCGCGAA         1346           Db         1264 TAGTCCGGATCGCAGTCTGCAACTCGTGAAGTCGCAATCGCTAGTAATCGCGAA         1323           Qy         1347 TAGATCCGCGCGTGAAGTCGGTGAAGTCGTGAACTCGCAACTCGCAACTCGCAACTCGCAACTCGCAACTCGCAACTCGCAACTCGCAACTCGCAACTCGCAACTCGCAACTCACACACTCACACTACACTCACACTCACACTCACACTCACACTCACACTCACACTCACACTCACACTCACACTCACACTCACACTCACACTCACACTCACACTCACACTCACACTCACACTCACACTCACACTACACTCACACTCACACTACACACTCACACTCACACTACACTCACACTACACTCACACTACACTCACACTACACACTACACACTACACACTACACTACACACTACACACTACACACTACACACTACACACTACACACTACACACTACACACTACACACTACACACTACACACTACACACTACACACTACACACTACACACTACACACACAC	1407 AGTTGGTTGCACAGAGTGGTTAGCCTAA-CTTAGTCAGGGGGGTCACCACGGTGGGT	RESULT 6 US-09-748-205-1 US-09-748-205-1 Sequence 1, Application US/09748205 Facent No. 6586562 Facent No. 6586562 FILE OF INVENTION: FILE OF INVENTION: those are used for the method. FILE REPERENCE: 4351009 CURRENT APPLICATION NUMBER: US/09/748,205 CURRENT PILICA DATE: 2000-12-27 NUMBER OF SEQ ID NOS: 1	n. 6; DB 4; Length 1501; );	Vative  CTTAACACAT  CTTAACACAT  CCTAACACAT  SACGGGTGAG	150 GAAACTCGAATTAATACCGCATACGT-CTACGGGGGAAAAGCAGGGGNTCATTAGACCTTG  124 GAAAGGGACGCTAATACCGCATACGTCTACGGGAGAAAGCAGGGGACTTCGGGCCTTG  209 CGCTATTAGATGCCGATACGTTAGCTTAGGTGGGGTAAAGGCCTACCATGGCG  194 CGCTATTAGATGCTAAGTCGGATTAGCTAGGTGGGGTAAAGGCCTACCATGGCG  195 CGCTATTAGATGAGCTAAGTCGGATTAGCTAGGTGGGGTAAAGGCCTACCATGGCG  196 CGCTATTAGATGAGCTAAGTCGGATTAGCTAGTTGGTGGGGTAAAGGCCTACCATGGCG	269 ACGATCTGTAGCTGGTCTGAGAGATCAGCCACACCGGGACTGAGACACGGCCCGGA  269 ACGATCTGTAGCTGGTCTGAGAGGATGATCAGCCACACCGGGACTGAGACACGGCCCGGA  244 ACGATCCGTACTGGTCTGAGAGGATCAGTCAGTCACTGGAGACTGAGACACGGTCCAGA  329 CT-CTACGGGAGCAGCAGTGGGGAATATTGGACAATGGNGGGAACCTGATCCAGCAT  304 CTCCTACGGGAGGAGCAGCGGGAATATTGGACAATGGGCGAAAGCTGATCCAGCAT  368 GCCGCGTGTGTGAAGAAGAGCCTTTTGTAAAGCACTTTAAGCTGAAGAAGCTCT  11	Oy 448 TCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATAAGCACCGGCTAACTCTGTGC 507

903 987

783

867 843 927

747 723 807 1047

1107 1083 1166

1226

1203

1286

1263

1346 1323

```
Sequence 1, Application US/10411319
; Patent No. 6649381
; GENERAL INFORMATION:
; APPLICANT: Canon Inc.
; TITLE OF INVENTION: Polyhydroxynate, Method For Production Thereof And Microorganisms; TITLE OF INVENTION: In The Same
; TITLE OF INVENTION: In The Same
; TITLE OF INVENTION: 10 The Same
; TITLE OF PREPRENCE: 03500.01501.1
; CURRENT APPLICATION NUMBER: US/10/411,319
; CURRENT FILING DATE: 2003-04-11
; PRIOR APPLICATION NUMBER: US 09/748,205
; PRIOR FILING DATE: 2000-12-27
; NUMBER OF SEQ ID NOS: 1
; SOFTWARE: Patentin version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGTIGATIGCACCAGAAGIGGITAGCCIAA-CITAGIGAGGGCGAICACCACGGIGIGGI 1465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1466 CGATGACTGGGGTGAAGTCGTAACAAGGTAGCCGTAGGGGAACCTGCGGCTGGATCAC 1523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1444 TCATGACTGGGGTGAAGTCGTACCAAGGTAGCCGTAGGGGAACCTGCGGCTGGATCAC 1501
                                                                                                        724 AGCTGCGAAGCGTGCGGAGCAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACG
                                                                                                                                       ATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCAGCTAACGCAATAAGTAGA
                                                                                                                                                                                                                                                                                904 GCGGTGGAGGTGTGGTTTAATTCGAAGGAACGTGAACGTACCTGACCTTGACATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1084 CCTTAGTTACCAGCACGTAATGGTGGGCACTCTAAGGAGACTGCCGGTGACAAACCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1144 GAAGGTGGGGATGACGTCAAGTCATCATGGCCCTTACGGCCTGGGCTACACACGTGCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AATGGTAGGTACAGAGGGCAGCTACACAGCGATGTGATGCGAATCTCAAAAAGCCTATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1264 TAGTCCGGATCGCAGTCTGCAACTCGACTGCGTGAAGTCGGAATCGCTAATCGCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  664 CGTAGATATAGGAAGGAACACCAGTGGGCGAAGGCGACCTGGACTGATACTGACACTG
                                                                             AGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACG
                                                                                                                                                                       784 ATGTCAACTAGCCGTTGGGAGCCTTGAGCTCTTAGTGGCGCAGCTAACGCATTAAGTTGA
                                                                                                                                                                                                                               844 CCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGAACGGGGGCCCCGCACAA
                                                                                                                                                                                                                                                               GCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACATA
                                                                                                                                                                                                                                                                                                                           CACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTGCATGG
                                                                                                                                                                                                                                                                                                                                             1024 CIGICGTCACACTCGTGAGATGTTGGGTTAAGTCCCGTAACGAGCGCAACCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1108 CCTTAGTTACCAGCAC-TTCGGGTGGGAACTCTAAGGATACTGCCAGTGACAAACTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1167 GAAGGCGGGACGACGTCAAGTCATGGCCCTTACGACCAGGGCTACACGTGCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCAGAATGCCGCGGTGAATACGTTCCCGGGCCTTGTACACACCGCCCGTCACACCATGGG
                 CGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCATCATACTGACACTG
                                                                                                                                                                                                     CCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCCGCACAA
                                                                                                                                                                                                                                                                                                                                                                                        CTGTCGTCAGCTCGTGTCGTGAGATGTTGGGTTAAGTCCCGCAACGAGCGCAACCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TAGTCCAGATTGGAGTCTGCAACTCGACTCCATGAAGTAGGAATCGCTAGTAATCGCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 8
US-10-411-319-1
                                                                                                                                        808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1287
                                                                             748
                                                                                                                                                                                                                                                                                                                                                                                        1048
                 888
                                                                                                                                                                                                    868
                                                                                                                                                                                                                                                               928
                                                                                                                                                                                                                                                                                                                             988
                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                  셤
                                                                                                                                   ò
                                                                                                                                                                  q
                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                     g
                                                                          à
                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
    543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CT-CTACGGGAGGCAGCAGTGGGGAATATTGGACAATGGNGGGAACCCTGATCCAGCCAT 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCGTAGGTGGTTTGTTAAGTTGGATGTGAAAGCCCCGGGCTCAACCTGGGAACTGCATTC 603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       G---CGGCGGACGGGTGAGTAATGCCTAGGAATCTGCCTGGTAGTGGGGGACAACGTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCCTACGGGAGGCAGCAGTGGGAGATATTGGACAATGGCGAAAGCCTGATCCAGCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCGCGTGTGTGAAGAAGTCTTCGGATTGTAAAGCACTTTAAGTTGGGAAGAAGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCTGGGAACTGCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAAACTGTTAGGCTAGAGTGAGAGGGAAGTAGAATTTCAGGTGTAGCGGTGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCGCCAGGCTTAACACATGCAAGTCGAGCGGAAACGATGATAGCTTGCTATTAGGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGCNGCCGGACGGGTGAGTAATACTTAGGAATCTACCTAGTAGTGGGGGATAGCTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAAACTCGAATTAATACCGCATACGT-CTACGGGAAAAGCAGGGGNTCATTAGACCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         124 GAAAGGGACGCTAATACCGCATACGTCCTACGGGAGAAAGCAGGGGACCTTCGGGGCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGCTATTAGATGAGCCTAAGTCGGATTAGCTAGATGGTGGGGTAAAAGGCCTAACCATGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        184 CGCTATCAGATGAGCCCTAGGTCGGATTAGCTAGTTGGTGAGGTAATGGCTCACCAAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACGATCTGTAGCTGGTCTGAGAGGATGATCAGCCACACACGGGGACTGAGACACGGCCCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCGCGTGTGTGAAGAAGGCCTTTTGGTTGTAAAGCACTTTTAAGCAGTGAAGAAGACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATAAGCACCGGCTAACTCTGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGCAGCCGCGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            604 AAAACTGACAAGCTAGAGTATGGTAGAGGTGGTGGAATTTCCTGTGTAGCGGTGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                       6
                                                                                                                                                                                                                                                                                                                                                                                                        Length 1501;
                                                                                                                                                                                                                                                                                                                                                                                                                                     202; Indels
                                                                                                                                                                                                                                                                                                                                                                                                        DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 72.0%; Score 1098.6; Best Local Similarity 85.9%; Pred. No. 0; Matches 1287; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                        ; ORGANISM: Pseudomonas jessenii P161 strain.
US-09-951-720-1
                                                                                                                                                                                                                                                                            2001-09-11
NUMBER OF SEQ ID NOS: 1
SEQ ID NO 1
LENGTH: 1501
US-09-951-720-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     જે
```

1406

ω

```
150 GAAACTCGAATTAATACCGCATACGT-CTACGGGAGAAAGCAGGGGNTCATTAGACCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           202;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 1098.6;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pseudomonas jessenii 161 strain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    72.0%;
llarity 85.9%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 1287; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-105-305-1
                                                                              1024
                                                                                                                                                                                             1227
                                                                                                                                                                                                                   1204
                                   964
                                                        1048
                                                                                                      1108
                                                                                                                          1084
                                                                                                                                                 1167
                                                                                                                                                                                                                                         1287
                                                                                                                                                                                                                                                                                     1347
                                                                                                                                                                                                                                                                                                            1324
                                                                                                                                                                                                                                                                                                                                 1407
                                                                                                                                                                                                                                                                                                                                                                             1466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  63
             988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM:
                           g
                                                       à
                                                                           원
                                                                                            õ
                                                                                                                    임
                                                                                                                                               Š
                                                                                                                                                                 g
                                                                                                                                                                                       à
                                                                                                                                                                                                              g
                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                          ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      687
                                                                                                                                                            149
                                                                                                                                                                                                                                                    268
                                                                                                                                                                                                        208
                                                                                                                                                                                                                              183
                                                                                                                                                                                                                                                                          243
                                                                                                                                                                                                                                                                                                 328
                                                                                                                                                                                                                                                                                                                                            387
                                                                                                                                                                                                                                                                                                                                                                                         447
                                                                                                                                                                                                                                                                                                                                                                                                                                  507
                                                                                                                                                                                                                                                                                                                                                                                                                                                         483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCGGTGGAGCATGTGGTTTTAATTCGAAGCAACGCGAAGAACCTTACCAGGCCTTGACATC 963
                                                                                                                                                                                                                                                                                                                                                                 363
                                                                                                                                                                                                                                                                                                                                                                                                              423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGCAGCCGCGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCGA 567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   484 cagcacccccccaraaracacacccrccaaccarraarcccaarracrcccccraaacccc 543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCTGGGAACTGCATCT 627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           604 AAAACTGACAAGCTAGAGTATGGTAGAGGGTGGTGGAATTTCCTGTGTAGCGGTGAAATG 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACG 807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCAGCTAACGCAATAAGTAGA 867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCGCCTGGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCACAA 927
                                                                                                                                                                                                                                                                                                                     ACGATCCGTAACTGGTCTGAGGGGTGATCAGTCACTGGGAACTGAGACACGGTCCAGA 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCGTAGGTGGTTTGTTAAGTTGGATGTGAAAGCCCCGGGCTCAACCTGGGAACTGCATTC 603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cceccreceargracecceccaaegrraaacreaargaarreaceegeeccecacaa 903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCGGTGGAGCATGTGGTTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACATA 987
                                                                                                                                    99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGLICAACTAGCCGTTGGGAGCCTTGAGCTCTTAGTGGCGCAGCTAACGCATTAAGTTGA
                                                                                                                                                           GAGCNGCCGGACGGGTGAGTAATACTTAGGAATCTACCTAGTAGTGGGGGATAGCTCGGG
                                                                                                                                                                          GAAACTCGAATTAATACCGCATACGT-CTACGGGAGAAAGCAGGGGNTCATTAGACCTTG
                                                                                                                                                                                                                                                                         cectraticadatidadectradeticadatitadetraditidesidadecinaatideeteaecaadeed
                                                                                                                                                                                                                                                                                                                                                                CTCCTACGGGAGGCAGCAGTGGGAATATTGGACAATGGGCGAAAGCCTGATCCAGCCAT
                                                                                                                                                                                                                                                                                                                                                                                                      GCCGCGTGTGTGAAGAAGTCTTCGGATTGTAAAGCACTTTAAGTTGGGAAGAAGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                 TCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATAAGCACCGGCTAACTCTGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCATCATACTGACACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGTGCGAAAAGCGTGGGGGGGAGCAAACAGGATTAGATACCCTGGTAGTCCACGCGTAAACG
                                                                                                                            GAAAGGGACGCTAATACCGCATACGTCCTACGGGAGAAAGCAGGGGACCTTCGGGCCTTC
                                                                                                                                                                                                                                                    CGCTATTAGATGAGCCTAAGTCGGATTAGCTAGATGGTGGGGTAAAGGCCTACCATGGCG
                                                                                                                                                                                                                                                                                               ACGATCTGTAGCTGGTCTGAGGGATGATCAGCCACACCGGGACTGAGACACGGCCCGGA
                                                                                                                                                                                                                                                                                                                                            CT-CTACGGGAGGCAGCAGTGGGGAATATTGGACAATGGNGGGAACCCTGATCCAGCCAT
                                                                                                                                                                                                                                                                                                                                                                                         GCCGCGTGTGTGAAGAAGGCCTTTTGGTTGTAAAGCACTTTAAGCAGTGAAGAAGACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAAACTGTTAGGCTAGAGTGAGAGGGAAGTAGAATTTCAGGTGTAGCGGTGAAATG
                                                                                                              GGCGGCAGGCTTAACACATGCAAGTCGAGCGGAAACGATGATAGCTTGCTATTAGGCGTC
                                                                                          6
                                                                   Length 1501
                                                                                          202; Indels
                                                                   4;
                                                                   В
                                                                                        0; Mismatches
                                                                  Score 1098.6;
Pred. No. 0;
         LENGTH: 1501
TYPE: DNA
ORGANISM: Pseudomonas jessenii 161 strain
                                                                 72.0%;
85.9%;
                                                                              Best Local Similarity 85.9
Matches 1287; Conservative
                                  ; ORGANISM: FE
US-10-411-319-1
                                                                                                               30
                                                                                                                                                           06
                                                                                                                                    σ
                                                                                                                                                                                                        150
                                                                                                                                                                                                                                                                                                                     244
                                                                                                                                                                                67
                                                                                                                                                                                                                             124
                                                                                                                                                                                                                                                    209
                                                                                                                                                                                                                                                                         184
                                                                                                                                                                                                                                                                                                269
                                                                                                                                                                                                                                                                                                                                            329
                                                                                                                                                                                                                                                                                                                                                                 304
                                                                                                                                                                                                                                                                                                                                                                                       388
                                                                                                                                                                                                                                                                                                                                                                                                              364
                                                                                                                                                                                                                                                                                                                                                                                                                                   448
                                                                                                                                                                                                                                                                                                                                                                                                                                                         424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        904
ID NO I
                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    724
                                                                                                                                  g
                                                                                                                                                          à
                                                                                                                                                                          8 8
                                                                                                                                                                                                                       8 6 8
                                                                                                                                                                                                                                                                                       8686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 6
```

Sequence 1, Application US/10105305

| Sequence 1, Application US/10105305
| Sequence 1, Application US/10105305
| General No. 6777153
| General No. 6777153
| General No. 6777153
| Setting No. 6777153
| TILLE OF INVENTION: POLYHYDROXYALKANOATE CONTAINING UNIT WITH THIENYL STRUCTURE IN THIS TITLE OF INVENTION: TONER WHICH CONTAIN THIS POLYHYDROXYALKANOATE, AND IMAGE-FORMING TITLE OF INVENTION: IMAGE-FORMING APPARATUS WHICH MAKE USE OF THE TONER FILE REFERENCE: CFO16309
| CURRENT APPLICATION NUMBER: US/10/105,305
| CURRENT FILING DATE: 2002-03-26
| PRIOR PULLING DATE: 2001-3-27, 2001-4-27
| NUMBER OF SEQ ID NOS: 1
| SEQ ID NO S: 1 1406 1166 1143 1226 1286 1263 1346 1323 1107 1383 1465 1384 AGTGGGTTGCACCAGAAGTAGCTAGTCTAACCTTCGGGAGGACGGTTACCACGGTGTGAT 1443 9 149 123 99 1444 TCATGACTGGGGTGAAGTCGTACCAAGGTAGCCGTAGGGAACCTGCGGCTGGATCAC 1501 CACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTGCATGG caargaactriccagagarggargggreccirceggaacarrgagacaegergcrecarge CTGTCGTCAGCTCGTGTCGTGAGATGTTGGGTTAAGTCCCGTAACGAGCGCAACCCTTGT CCTTAGTTACCAGCAC-TTCGGGTGGGAACTCTAAGGATACTGCCAGTGACAAACTGGAG CCTTAGTTACCAGCACGTAATGGTGGGCACTCTAAGGAGAGACTGCCGGTGACAAACCGGAG GAAGGCGGGGACGACGTCAAGTCATCATGGCCCTTACGACCAGGGCTACACACGTGCTAC AATGGTAGGTACAGAGGCAGCTACACAGCGATGTGATGCGAATCTCAAAAAGCCTATCG AATGGTCGGTACAGGGTTGCCAAGCCGCGAGGTGGAGCTAATCCCACAAAACCGATCG TAGTCCAGATTGGAGTCTGCAACTCGACTCCATGAAGTAGGAATCGCTAGTAATCGCGGA TCAGAATGCCGCGGTGAATACGTTCCCGGGCCTTGTACACACCCCCGTCACACCATGGG AGTTGATTGCACCAGAAGTGGTTAGCCTAA-CTTAGTGAGGGGGATCACCACGGTGTGGT GAGCNGCCGGACGGGTGAGTAATACTTAGGAATCTACCTAGTAGTGGGGGATAGCTCGGG 30 GGCGGCAGGCTTAACACATGCAAGTCGAGCGGAAACGATGATAGCTTGCTATTAGGCGTC gecegcaegectaacacarecaagrogagege--argacegeagerrecreaarrea CGATGACTGGGGTGAAGTCGTAACAAGGTAGCCGTAGGGGAACCTGCGGCTGGATCAC 6 Length 1501; Indels

8 6 8 6 8 6 8		Db   1204 ANTGGTCGGTRCAGAGCTTGCCAAGCCGGAGGTGGAGCTAATCCCACAAAACCGATCG 1263   1287 TAGTCCAGATTGGAACTCGAACTCGAACTCGAAGTAGGAATCGCTAGTAATCGCGA 1346
8 & 8 &	448 TCGGTTAATACCCGGGACGATGACATTAGCTGCAGAATAAGCACCGGCTAACTCTGTGC 507  424 TAACCTAATACGTTAGTGTTTTGACGTTACCGACAGAATAAGCACCGGCTAACTCTGTGC 507  508 CAGCAGCCGCGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCGA 567	RESULT 10 US-10-266-787-5 ; Sequence 5, Application US/10266787 ; Patent No. 680810 ; GENERAL INFORMATION: ; APPLICANT: Yano, Tetsuya ; APPLICANT: Takeshi ; APPLICANT: Suda, Sakae
6 6 6 6	568         GCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCTGGGAACTGCATCT         627	APPLICANT: Honma, Tsutomu  TITLE OF INVENTION: Polyhydroxyalkanoate Synthase and Gene Encoding the Same Enzyme  FILE REFERENCE: 03500,015225.3  CURRENT APPLICATION NUMBER: 10/10/266,787  CURRENT FILING DATE: 2002-10-09  PRIOR APPLICATION NUMBER: JP 2000-095004  PRIOR FILING DATE: 2000-03-30
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	688 CGTAGAGATCTGAAGGAATACCGAAGGCAGAGCTTCCTGGCATCATACTGACACTG 747	) NUMBER OF SEC 1D NOS: 11 ) SOFTWARE: Microsoft Word ) SEQ ID NO 5 1 TYPE: DNA ) ORGANISM: Pseudomonas jessenii P161 ; BP-7376 ) FEATURE: CDNA to 16S rRNA
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		-10-266-787-5  Ouery Match 72.0%; Score 1098.6; DB 4; Length 1501; Best Local Similarity 95.9%; Pred. No. 0; Best Local Similarity 95.9%; Pred. No. 0; Matches 1287; Conservative 0; Mismatches 202; Indels 9; Gaps  30 GGGGGAGGCTTAACACATGCAAGTCGAAGTGGAAGGATAGCTTCCTATTAGGCGTC
े व के व	928 GCGGTGGAGCATGTGGTTTAATTCGATGCGAAGAACCTTACCTGGTCTTGACATA 987	Db 9 GGGGCAGGCTAACACATGCAAGGGGATGACGGGAGCTTGCTCCTGAATTCA 66   Qy 90 GAGCNGCGGAGGGTGAGTAATACTTAGGAATCTACCTAGTAGTGGGGGATAGCTCGG 149   Qy 90 GAGCNGCGGACGGGTGAGTAATACTTAGGAATCTACCTAGTAGTGGGGGATAGCTCGG 149   Db 67 GCGGCGGACGGGTGAGTAATACCT-CTAGGAATCTGCCTGGTAGTGGGGACAACGTCTC 123   Qy 150 GAAACTCGAATTAATACGCATACGT-CTAGGGAAAAGCAGGGGNTCATTAGACCTTG 208
2 4 4 5 4 2	CTGTCGTCAGCTCGTCGTCGAGATGTTGGCTTAAGTCCCGCAACGCCGCAACCCTTGT 1  CTGTCGTCAGCTCGTCGTCGAGATGTTGGGTTAAGTCCCGCAACGCCGCAACCCTTGT 1  CTGTCGTCAGCTCGTCGTCGATGGTTGGGTTAAGTCCCGTAACGAGCGCAACCCTTGT 1  CCTTAGTTACCAGCAC-TTCGGGTGGTGGTAGCTCTAAGATACTGCCAGTGACAAACGGAG 1  CTTAGTTACCAGCAACGTAATGGTGGTCGCAACTCTAAGAGAACTGCTGT 1  CTTAGTTACCAGCAACGTAATGGTGGCACTCTAAGAACCGGTGACAAACCGGAG 1	
\$ 6 \$	1167 GAAGGCGGGACCACGTCATCATGGCCCTTACGACCAGGGCTACACGTGCTAC	Db   244 ACGATCCGTAACTGGTCTGAGGGATGATCACTCGGAACTGGGACTGGGGCACGGG 303     Qy   329 CT-CTACGGGAGGCAGCAGTGGGGAATATTGGACAATGGGAGCCTGATCCAGCCAT 387

요

8 8

8 8 8 8

8

2 6 6 6

g

ò

8 8 8

8 8

g

8 6

\$ B \$

6 6 6 6 6

g

ò

8 &

```
267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACT-CTACGGGGGGCGCCACGCGGGGGAATATTGGACAATGGNGGGAACCCTGATCCAGCCA 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCGAGCNGCCGGACGGGTGAGTAATACTTAGGAATCTACCTAGTAGTGGGGGATAGCTCG 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACGAGUGGCGGACGGGUGAGUAAUGUCUGGGAAAACUGCCUGAUGGAGGGGGAUAACUAC 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    158 uegalaceguacualuacecaulacegueguegealacelalaeguegealegue 217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97
1444 TCATGACTGGGGTGAAGTCGTACCAAGGTAGCCGTAGGGGAACCTGCGGCTGGATCAC 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30 GGCGGCAGGCTTAACACATGCAAGTCGAGCGGAAACGATGA--TAGCTTGCTATTAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    148 GGGAAACTCGAATTAATACCGCATACGTCTACGGGAGAAAGCAGGGGNTCATTAGACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGCTATTAGATGAGCCTAAGTCGGATTAGCTAGATGGTGGGGGTAAAGGCCTACCATGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACGATCTGTAGCTGGTCTGAGAGGATGATCAGCCACACCGGGACTGAGACACGGCCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1542;
                                                                                                                                                                                                                                                                                                                                          SOIL AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRING SISIEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRING APPLICATION DATA:
APPLICATION NUMBER: US/08/114,695A
FILING DATE: 31-AUG-1993
CLASSIFICATION: 435
ATTONEN'AGENT INFORMATION:
NAME: WIDSTING, ANN M.
REGISTRATION NUMBER: 33,977
REBERENCE/DOCKET NUMBER: 600.268US1
TELEPHONE: 612-339-0331
TELEPHONE: 612-339-0331
TELEPHONE: 612-339-0331
TELEPRORATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                      S-TRIAZINES IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 70.5%; Score 1076; DB 1; Best Local Similarity 67.2%; Pred. No. 0; Matches 1008; Conservative 246; Mismatches 243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE: SCHWEGMAN, LUNDBERG & WOESSNER, STREET: 3500 IDS CENTER CITY: MINNEAPOLIS STATE: NN COUNTRY: USA
                                                                                                                                                                                                                                                                APPLICANT: Mandelbaum, Raphael T.
APPLICANT: Wackett, Lawrence P.
TITLE OF INVENTION: DEGRADATION OF
TITLE OF INVENTION: WATER
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
                                                                                                                                                          Sequence 1, Application US/08114695A; Patent No. 5508193; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Escherichia coli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1542 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             55402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-114-695A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
       원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TAGTCCAGATTGGAGTCTGCAACTCCATGAAGTAGGAATCGCTAGTAATCGCGGA 1346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTTAGTTACCAGCAC-TTCGGGTGGGAACTCTAAGGATACTGCCAGTGACAACTGGAG 1166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAAGGCGGGGACGACGTCAAGTCATCATGGCCCTTACGACCAGGGCTACACACGTGCTAC 1226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AATGGTAGGTACAGAGGCAGCTACACAGCGATGTGATGCGAAATCTCAAAAAAGCCTATCG 1286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rcada Argrede Gerga Aracerrece de de certa caracere de contra caracere de contra de co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGTGGGTTGCACCAGAAGTAGCTAGTCTAACCTTCGGGAGGACGGTTACCACGGTGTGAT 1443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTGCATGG 1047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAATGAACTTTCCAGAGATGGATGGGTGCCTTCGGGAACATTGAGACAGGTGCTGCATGG 1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1024 CTGTCGTCAGCTCGTGTCGTGAGATGTTGGGTTAAGTCCCGTAACGAGCGCAACCCTTGT 1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCTTAGTTACCAGCACGTAATGGTGGGCACTCTAAGGAGACTGCCGGTGACAAACCGGAG 1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TAGTCCGGATCGCAGTCTGCAACTCGACTGCGTGAAGTCGGAATCGCTAGTAATCGCGAA 1323
                                                                                                                                            TAACCTAATACGTTAGTGTTTTGACGTTACGACAGAATAAGCACCGGCTAACTCTGTGC 483
                                                                                                                                                                                                                                       CAGCAGCCGCGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCGA 567
                                                                                                                                                                                                                                                                                                          543
                                                                                                                                                                                                                                                                                                                                                                         GCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCTGGGAACTGCATCT 627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCGCACAA 903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACATA 987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGGTGGAGCATGTGGTTTAATTCGAAGCAACGCGAAGAACCTTACCAGGCCTTGACATC 963
                                                                                                                                                                                                                                                                                                                                                                                                                                         GCGTAGGTGGTTTGTTAAGTTGGATGTGAAAGCCCCGGGCTCAACCTGGGAACTGCATTC 603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           604 AAAACTGACAAGCTAGAGTATGGTAGAGGGTGGTGGTGTATTTCCTGTGTAAGCGGTGAAATG 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGTAGATATAGGAAGGAACACCAGTGGGAAAGGCGACCACCTGGACTGATACTGACACTG 723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGTGCGAAAGCGTGGGGAGCAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACG 783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCGCCTGGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCACAA 927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGATGACTGGGGTGAAGTCGTAACAAGGTAGCCGTAGGGGAACCTGCGGCTGGATCAC 1523
CAGCAGCCGCGGGTAATACAGAGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCAGCTAACGCAATAAGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAAGGTGGGGATGACGTCATCATGGCCCTTACGGCCTGGGCTACACACGTGCTAC
                                                                                                     TCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATAAGCACCGGCTAACTCTGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAAACTGTTAGGCTAGAGTGAGGTGAGAGGAAGTAGAATTTCAGGTGTAGCGGTGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGTCGTCAGCTCGTGTCGTGAGATGTTGGGTTAAGTCCCGCAACGAGCGCAACCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AATGGTCGGTACAGAGGGTTGCCAAGCCGCGAGGTGGAGCTAATCCCACAAAACCGATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1407
                                                                                                     448
                                                                                                                                                                                                                                       508
                                                                                                                                                                                                                                                                                                       484
                                                                                                                                                                                                                                                                                                                                                                         568
                                                                                                                                                                                                                                                                                                                                                                                                                                            544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1227
```

```
GCCGGACGGGTGAGTAATACTTAGGAATCTACCTAGTAGTGGGGGATAGCTCGGGGAAAC 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GIGICICAAGAAGGICIICGGAIIGIAAAGCACIIIAAGIIGGGAGGAAGGGCAIIAACC 388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTTAGGCTAGAGTGAGGGGAAGTAGAGTTTCAGGTGTAGCGGTGAATGCGTAG 692
                          CGATGACTGGGGTGAAGTCGTAACAAGGTAGCCGTAGGGGAACCTGCGGCTGGATCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTAGATGAGCCTAAGTCGGATTAGCTAGATGGTGGGGTAAAGGCCTACCATGGCGACGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    149 TCAGATGAGCTAGGTCGGATTAGCTAGTTGGTGAGGTAACGGCTCACCAAGGCGAACGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCGTAACTGGTCTGAGAGGATGATCACTCACACTGGAACTGAGACACGGTCCCAGACTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGTGTGAAGAAGACCTTTTGGTTGTAAAGCACTTTAAGCAGTGAAGAAGACTCTTCGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCGCGGTAATACGAAGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAAGCGCGCGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGTGGTTTGTTAAGTTGAATGTGAAAGCCCCGGGCTCAACCTGGGAACTGCATCCAAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gecesaceses de la contra dela contra de la contra del 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  155 TCGAATTAATACCGCATACGT-CTACGGGAAAAGCAGGGGUTCATTAGACCTTGCGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGTAGCTGGTCTGAGGATGATCAGCCACACCGGGACTGAGACACGGCCCGGACT-CT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACGGGAGGCAGCAGTGGGGAATATTGGACAATGGNGGGAACCCTGATCCAGCCATGCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCTGGGAACTGCATCTGAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TAATACCCGGGGACGATGACATTAGCTGCAGAATAAGCACCGGCTAACTCTGTGCCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1467;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                    and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4
                                                                                                                                                                                                                                                                                                                                                                    Method
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             199;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB
                                                                                                                                                                                                                        RESULT 12
US-09-726-774-3
is Sequence 3, Application US/09726774
is Patent No. 6677153
is GENERAL INFORMATION:
APPLICANT: Iversen, Patrick L.
TITLE OF INVENTION: Composition
TITLE OF INVENTION: Composition
FILE REFERENCE: 0450-0032.30
is CURRENT FADFLICATION NUMBER: US/09/726,774
CURRENT FILING DATE: 2000-11-29
is PRIOR FILING DATE: 1999-11-29
is PRIOR FILING DATE: 1999-11-29
is NUMBER: PastSEQ for Windows Version 4.0
is SEQ ID NOS: 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 1070.8; I
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; LENGTH: 1467
; TYPE: DNA
; ORGANISM: Pseudomonas aeruginosa
VS-09-726-774-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         70.2%; inity 85.9%; languages. Conservative 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                            1538
                                                                                                               C 1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Simil
Matches 1233; C
                                                                                                                                                          o-
                          1466
                                                                                                                 1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 329 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           389
                                                                                                                                                          1538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        633
                                                      g
                                                                                                             ò
                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  do
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        997
                                                                                                                                                                               517
                                                                                                                                                                                                                               999
                                                                                                                                                                                                                                                                         577
                                                                                                                                                                                                                                                                                                                       626
                                                                                                                                                                                                                                                                                                                                                                    637
                                                                                                                                                                                                                                                                                                                                                                                                                 989
                                                                                                                                                                                                                                                                                                                                                                                                                                                            697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             986
ACUCCUACGGGAGGCAGUGGGGAAUAUUGCACAAUGGGCGCAAGCCUGAUGCAGCCA 397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCGTAGAGAGATCTGAAGGAATACCGATGCCGAAGGCAGCTTCCTGGCATCATACTGACACT
                                                                                                                                                            : |::||:|||:|||:|||:|| and and controlled the contr
                                                                                                                                                                                                                                                      CCAGCAGCGGGGAAUACGGAGGGGGGAAGCGUUAAUCGGAAUUACUGGGCGUAAAGCG
                                                                                                                                                                                                                                                                                                                                              GCTGTCGTCACCTCGTGTCGTGAGATGTTGGGTTAAGTCCCGCAACGAGCGCAACCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TAGTCCAGATTGGAGTCTGCAACTCGACTCCATGAAGTAGGAATCGCTAGTAATCGCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCAGAATGCCGCGGTGAATACGTTCCCGGGCCTTGTACACACCGCCCGTCACACCATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATAAGCACCGGCTAACTCTGTG
                                                                                                                                                                                                                            CCAGCAGCGGGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCG
                                                                                                                                                                                                                                                                                                                    AGCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCTGGGAACTGCATC
                                                                                                                                                                                                                                                                                                                                                                                                            TGAAACTGTTAGGCTAGAGTAGGTGAGGGAAGTAGAATTTCAGGTGTAGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGGCTCGAAAGCGTAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCAGCTAACGCAATAAGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCECCTGGGGAGTACGCCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCTTAGTTACCAGCACTTCGGGTGGGAACTCTAAGGATACTGCCAGTGACAAACTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AATGGTAGGTACAGGGCAGCTACACAGCGATGTGATGCGAATCTCAAAAAGCCTATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGTIGATIGCACCAGAAGIGGITAGCCIAA-CITAGIGAGGGGGGATCACCACGGIGIGGI
                                                                                     398
                                                                                                                                                                               458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1178
                                          387
                                                                                                                                  447
                                                                                                                                                                                                                            507
                                                                                                                                                                                                                                                                                                                    567
                                                                                                                                                                                                                                                                                                                                                                                                            627
                                                                                                                                                                                                                                                                                                                                                                                                                                                         638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        807
                                        ò
                                                                                   g
                                                                                                                      જ
                                                                                                                                                                      셤
                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ωp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          යි ර
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 8 6 8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 & 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

332

268 392

273 208

213

88

328 452 512

572 508 632

Wed Apr 13

g

ò

8 8 8

8 8 8 S

```
386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACGCAGGCGGTTTGTTAAGTCAGATGTGAAATCCCCGGGCTCAACCTGGGAACTGCATC 637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        89 CGAGCNGCCGGACGCGTGAGTAATACTTAGGAATCTACCTAGTAGTGGGGGATAGCTCGG 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               158 GGAAACGGTAGCTAATACCGCATAACGTCGCAAGACCAAAGAGGGGGGCCTTCGGGCCTC 217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GACGATCCCTAGCTGGTCTGAGGATGACCAGCCACACTGGAACTGAGACACGGTCCAG 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACTCCTACGGGAGGCAGCAGTGGGGAATATTGCACAATGGGCGCAAAGCCTGATGATGAGGCAA 397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCCGCGTGTGTGAAGAGGCCTTTTGGTTGTAAAGCACTTTAAGCAGTGAAGAAGACTC 446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ccaecaecceceraaraceeaeeerecaaecerraarceeaarracreeceraaaece 577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              218 Traccarcedargracccagareddarradcragradgradgradgradgcradccraddc 277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCTGGGAACTGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACT-CTACGGGAGGCAGCAGTGGGGAATATTGGACAATGGNGGGAACCCTGATCCAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCAGCAGCCGCGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30 GGCGGCAGGCTTAACACATGCAAGTCGAGCGGAAAC-GATGATAGCTTTGCTATTAGGCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGAAACTCGAATTAATACCGCAT-ACGTCTACGGGAGAAAGCAGGGGGNTCATTAGACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 208 GCGCTATTAGATGAGCCTAAGTCGGATTAGCTAGATGGTGGGGGTAAAGGCCTACCATGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GACGATCTGTAGCTGGTCTGAGAGGATGATCAGCCACACACGGGACTGAGACACGGCCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCGGTTAATACCCCGGGGACGATGACATTAGCTGCAGAATAAGCACCGGCTAACTCTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                raaagriaaraccrurgcrcarrcaccrraccccccagaagaagcaccgcraacrcccrc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1542;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 2;
                                                                                                                                                                                      Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No. 0;
0; Mismatches 241;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             70.1%; Score 1069.2;
83.7%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                     ATTUCKNEY, TOWNSTAT, TOWNSTAT, TOWNSTAT, TOWNSTAT, A0,027
REGISTRATION NUMBER: 40,027
REPERENCH JONGER: FORS-02565
TELEPANTICATION INFORMATION:
TELEPAN: (415) 705-8410
FELEPAN: (415) 397-8338
INFORMATION FOR SEQ ID NO: 158:
SEQUENCE CHARACTERISTICS:
LENGTH: 1542 base pairs
                                                                                                                                                                                                          CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/757,653
FILING DATE:
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                                                                             MEDIUM TYPE: Floppy disk comparts: IBM PC comparts to COPPUTES: IBM PC COMPARTS: DOS COPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0,
                                            United States Of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity 83.7
Matches 1256; Conservative
                                                                                         COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: nucleic acid
STRANDEDNESS: doubl
TOPOLOGY: linear
MOLECULE TYPE: DNA (9
  STATE: Carr
COUNTRY: Uni
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -08-757-653-158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GITGCTCCAGAAGTAGCTAGTCTAACCTTCGGGGGGACGGTTACCACGGAGGTATTCATG 1408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTCAGCTCGTGTCGTGAGATGTTGGGTTAAGTCCCGTAACGAGCGCAACCCTTGTCCTTA 1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTTACCAGCAC-TTCGGGTGGGAACTCTAAGGATACTGCCAGTGACAAACTGGAGGAAGG 1171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1172 CGGGGACGACGTCAAGTCATGATGGCCCTTACGACCAGGGCTACACACGTGCTACAATGG 1231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TAGGTACAGAGGCAGCTACACACGAGCGATGTGATGCGAATCTCAAAAAGCCTATCGTAGTC 1291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCGGTACAAAGGGTTGCCAAGCCGCGAGGTGGAGCTAATCCCATAAAACCGATCGTAGTC 1228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGGATCGCAGTCTGCAACTCGACTGCGTGAAGTCGGAATCGCTAGTAATCGTGAATCAGA 1288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATGCCGCGGTGAATACGTTCCCGGGCCTTGTACACACCGCCCGTCACACCACGAGTTG 1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGTCACGGTGAATACGTTCCCGGGCCTTGTACACACCGCCCGTCACACCATGGGAGTGG 1348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTGCACCAGAAGTGGTTAGCCTAA-CTTAGTGAGGGCGATCACCACGGTGTGGTCGATG 1470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGATTGGAGTCTGCAACTCGACTCCATGAAGTAGGAATCGCTAGTAATCGCGGATCAGA 1351
                                                                                                                                         812
                                                                                                                                                                                                                                        872
                                                                                                                                                                                                                                                                                       808
                                                                                                                                                                                                                                                                                                                                       932
                                                                                                                                                                                                                                                                                                                                                                                    868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AACTTTCCAGAGATGGATTGGTGCCTTCGGGAACTCTGACACAGGTGCTGCATGGCTGTC 988
                                                                                         ATATAGGAAGGAACACCAGTGGCGAAGGCGACCACCTGGGCTAATACTGACACTGAGGTG 688
                                                                                                                                                                                                                                                                                                                                                                                                                                   GGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACATACACAG 992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGAGCATGTGGTTTAATTCGAAGCAACGCGAAGAACCTTACCAGGCCTTGACATGCAGAG 928
TGGCAAGCTAGAGTATGGCAGAGGGTGGTGGAATTTTCCTGTGTAGCGGTGAATGCGTAG 628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACTGGGGTGAAGTCGTAACAAGTAGCGGTAGGGGAACCTGCGGCTGGATCACCTC 1464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTTACCAGCACGTTAAGGTGGGCACTCTAAGGAGACTGCCGGTGACAAACCGGAGGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACTGGGGTGAAGTCGTAACAAGGTAGCCGTAGGGGAACCTGCGGGTTGATCACCTC 1526
                                               AGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCATCATACTGACACTGAGGCT
                                                                                                                                                                    CGAAAGCGTGGGGAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACGATGTC
                                                                                                                                                                                                                                          813 TACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCAGCTAACGCAATAAGTAGACCGCC
                                                                                                                                                                                                                                                                      GACTAGCCGTTGGGATCCTTGAGATCTTAGTGGCGCAGCTAACGCATTAAGTCGACCGCC
                                                                                                                                                                                                                                                                                                                                                                       TGGGGAGTACGGCCGCTAGGTTAAAACTCTAATGAATTGACGGGGCCCGCACAAGCGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGGGATGACGTCAAGTCATCATGACCCTTACGGCCTGGGCTACACACGTGCTACAATGG
                                                                                                                                              CGAAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACGATGTC
                                                                                                                                                                                                                                                                                                                                       TGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCACAAGCGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTGCATGGCTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTCAGCTCGTGTCGTGAGATGTTGGGTTAAGTCCCGCAACGAGCGCAACCCTTGTCCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Kaiser, Michael W.
APPLICANT: Lyamichev, Victor I.
APPLICANT: Lyamichev, Natasha
TITLE OF INVENTION: Cleavage Of Nucleic Acid Using
TITLE OF INVENTION: Thermostable FEN-1 Endonucleases
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3: Medlen & Carroll, LLP
220 Montgomery Street, Suite 2200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 158, Application US/08757653
Patent No. 5843669
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -08-757-653-158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1409
                                                                                              629
                                                                                                                                              753
                                                                                                                                                                                                                                                                                       749
                                                                                                                                                                                                                                                                                                                                       873
                                                                                                                                                                                                                                                                                                                                                                                      809
                                                                                                                                                                                                                                                                                                                                                                                                                                   933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           989
```

원 장 임

8 6 8 6

ò 8 ò g ò QQ 셤

ò

ò g ò 517

566

506

267

327

157 207

97

```
## APPLICANT: Lentzen, Georg

## TITLE OF INVENTION: Methods and Kits for Discovery of RNA-Binding Antimicrobials

## FILE REFERENCE: 22620/1150 (Formerly 3950/85276)

## CURRENT APPLICATION NUMBER: US/09/465,355

## CURRENT FILING DATE: 1999-12-16

## PRIOR APPLICATION NUMBER: US 09/325,601

## PRIOR APPLICATION NUMBER: US 09/325,601

## PRIOR APPLICATION NUMBER: GB 9812196.5

## PRIOR FILING DATE: 1999-06-05

## PRIOR FILING DATE: 1999-03-02

## PRIOR FILING DATE: 1999-03-03-02

## PRIOR FILING DATE: 1999-03-03-02
                                                                                                                                                                                                                                                                                                                                                                                                                                  207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              746
                                                                                                                                                                                                                                                                                                                                                                                     148
                                                                                                                                                                                                                                                                                                                                                                                                           157
                                                                                                                                                                                                                                                                                                                                                                                                                                                          217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      697
                                                                                                                                                                                                                                                                                                                                      88
                                                                                                                                                                                                                                                                                                                                                            97
                                                                                                                                                                                                                                                                                                                                                  CGAGCNGCCGGACGGGTGAGTAATACTTAGGAATCTACCTAGTAGTGGGGGAATAGCTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                GACGATCTGTAGCTGGTCTGAGAGGATGATCAGCCACACCGGGACTGAGACACGGCCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACT-CTACGGGAGGCAGCAGTGGGAAATATTGGACAATGGNGGGAACCCTGATCCAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGCCGCGTGTGTGAAGAAGGCCTTTTGGTTGTAAAGCACTTTAAGCAGTGAAGAAGACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTCGGTTAATACCCGGGGACGATGACTTAGCTGCAGAATAAGCACCGGCTAACTCTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAGCAGCCGCGGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGAAACTGTTAGGCTAGAGTAGGTGAGAGGAAGTAGAATTTCAGGTGTAGAGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCATCATACTGACACT
                                                                                                                                                                                                                                                                                                                                    30 GGCGCCAGGCTTAACACATGCAAGTCGAGCGGAAAC-GATGATAGCTTTAGGCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                  GGAAACTCGAATTAATACCGCAT-ACGTCTACGGGAGAAGCAGGGGGNTCATTAGACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCGCTATTAGATGAGCCTAAGTCGGATTAGCTAGATGGTGGGGTAAAGGCCTACCATGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ccadcadccccccccuaauacccaacccuccaacccuuaaucccaaauuacuccccuaaaccc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCGTAGGTGGCTTGATAAGTCAGATGTGAAAATCCCCGGGCTTAACCTGGAACTGCATC
                                                                                                                                                                                                                                                                                       Length 1542;
                                                                                                                                                                                                                                                                                                               4
                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 3;
                                                                                                                                                                                                                                                                                                             241;
                                                                                                                                                                                                                                                                                    70.1%; Score 1069.2;
.larity 67.2%; Pred. No. 0;
Conservative 247; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                 --
                                                                                                                                                                                                   PatentIn version 3.0
                                                                                                                                                                                                                                                 ; ORGANISM: Escherichia coli
US-09-465-355-2
                                                                                                                                                                                      NUMBER OF SEQ ID NOS: 37
                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 1009; Conserv
                                                                                                                                                                                               SOFTWARE: Pater
SEQ ID NO 2
LENGTH: 1542
                                                                                                                                                                                                                                        TYPE: RNA
                                                                                                                                                                                                                                                                                                                                                           38
                                                                                                                                                                                                                                                                                                                                                                                     89
                                                                                                                                                                                                                                                                                                                                                                                                                                   149
                                                                                                                                                                                                                                                                                                                                                                                                                                                          158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              687
                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  дg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g. 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                            ે
                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                 1046
                                                                                                                                                                                                                                                                                                                                                                                                                      1177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1465
                                                                                                                                                                                                                                                                                                                        1057
                                                                                                                                                                                                                                                                                                                                                1106
                                                                                                                                                                                                                                                                                                                                                                       1117
                                                                                                                                                                                                                                                                                                                                                                                               1166
                                                                                                                                                                                                                                                                                                                                                                                                                                               1226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TAGTCCAGATTGGAGTCTGCAACTCGACTCCATGAAGTAGGAATCGCTAGTAATCGCGGA 1346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1537
                                                    746
                                                                                                                                                                                               926
                                                                                                                                                                                                                                                  986
                           697
                                                                                                  806
                                                                                                                                                   998
                                                                                                                                                                          877
                                                                                                                                                                                                                          937
                                                                                                                                                                                                                                                                         997
                                                                            757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ·.
                                                                                               GCTGTCGTCGTCGTGTTGTGAAATGTTGGGTTAAGTCCCGCAACGAGCGCAACCCTTA
                                                                                                                                                                                                                                                             998 CCACGGAAGTTTTCAGAGATGAGAATGTGCCTTCGGGAACCGTGAGACAGGTGCTGCATG
                                                                                                                                                                                                                                                                                                                                                                                                           GAAGGCGGGGACCACCTCAAGTCATCATGGCCCTTACGACCAGGGCTACACACGTGCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCATGACTGGGGTGAAAGTCGTAACAAGGTAACCGTAGGGGAACCTGCGGTTGGATCACCT
   TGAAACTGTTAGGCTAGAGTAGGTGAGGGGAAGTAGAATTTCAGGTGTAGCGGTGAAAT
                     TCATACTGGCAAGCTTGAGTCTCGTAGAGGGGGTAGAATTCCAGGTGTAGCGGTGAAT
                                                  GCGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCATCATACTGACACT
                                                              GATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCAGCTAACGCAATAAGTAG
                                                                                                                                                                        GATGTCGACTTGGAGGTTGTGCCCTTGAGGCGTGGCTTCCGGAGCTAACGCCG
                                                                                                                                                                                                                                               AGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACAT
                                                                                                                                                                                                                                                                                                ACACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTGCATG
                                                                                                                                                                                                                                                                                                                                              GCTGTCGTCAGCTCGTGAGATGTTGGGTTAAGTCCCGCAACGAGCGCAACCCTTG
                                                                                                                                                                                                                                                                                                                                                                                               TCCTTAGTTACCAGCACTTCGGGTGGGAACTCTAAGGATACTGCCAGTGACAAACTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AATGGTAGGTACAGAGGCAGCTACACAGGGATGTGATGCGAATCTCAAAAAGCCTATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u> AATGGCGCATACAAAGAGAAGCGACCTCGCGAGAGCGAAGCGGACCTCATAAAGTGCGTCG</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TAGTCCGGATTGGAGTCTGCAACTCGACTCCATGAAGTCGGAATCGCTAGTAATCGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCAGAATGCCGCGGTGAATACGTTCCCGGGCCTTGTACACACCGCCCGTCACACCATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGTICATIGCACCAGAAGTGGTIAGCCIAA-CIIAGTGAGGGCAICACCACGGTGTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGATGACTGGGGTGAAGTCGTAACAAGGTAGCCGTAGGGGAACCTGCGGCTGGATCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 14
US-09-465-355-2
; Sequence 2, Application US/09465355
; Patent No. 6316.194
; GENERAL INFORMATION:
APPLICANT: Karn, Jonathan
; APPLICANT: Karn, Jonathan
; APPLICANT: Muxchie, David
; APPLICANT: Muxchie, Alastair
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C 1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -ပ
                                                                                                                                                                                                                                                                                                                                                                                                                    1118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1478
   627
                                                  687
                                                                         698
                                                                                                 747
                                                                                                                         758
                                                                                                                                                                       818
                                                                                                                                                                                                867
                                                                                                                                                                                                                       878
                                                                                                                                                                                                                                                                       938
                                                                                                                                                                                                                                                                                                987
                                                                                                                                                                                                                                                                                                                                              1047
                                                                                                                                                                                                                                                                                                                                                                       1058
                                                                                                                                                                                                                                                                                                                                                                                               1107
                                                                                                                                                                                                                                                                                                                                                                                                                                            1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1526
                                                                                                                                                 807
                                                                                                                                                                                                                                                 927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1538
                        g
                                                                 ద
                                                                                           õ
                                                                                                                    g
                                                                                                                                                                 a
                                                                                                                                                                                             B 5
                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                            8 8 8
   ठे
                                                 ò
                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                             g &
                                                                                                                                                                                                                                                                                                                                                                                                                                                              8 6 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
```

```
DB 3;
                                                                                                                                                                                                                                                                                                          Score 1069.2; DB 3;
Pred. No. 0;
0; Mismatches 241;
                       AMERICA
                                                                                                                                                                                                                                                               TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 83.7%;
Matches 1256; Conservative
                                                                                                                                                                                                                                  LENGTH: 1542 base pairs
             CALIFORNIA
UNITED STATES
                                                                                                                                                                                                                                             TYPE: nucleic acid strANDEDNESS: double
                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
 SAN FRANCISCO
                              94104
                                                                                                                                                                                                                                                                                     US-08-520-946-158
                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                      38
                                                                                                                                                                                                                                                                                                                                                                                                                                    149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          507
                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                        ACACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTGCATG 1046
                                                                                                                                                                                                    998 CCACGGAAGUUUUCAGAGAUGAGAAUGUGCCUUCGGGAACCGUGAGACAGGUGCUGCAUG 1057
                                                                                                                                                                                                                                 GCTGTCGTCAGCTCGTGTGGAGATGTTGGGTTAAGTCCCGCAACGAGCGCAACCTTG 1106
                                                                                                                                                                                                                                            1297
                                                                                                                                                                                                                                                                                                                   GAAGGCGGGGACGACGTCAAGTCATGGCCCTTACGACCAGGGCTACACACGTGCTAC 1226
                                                                                                                                                                                                                                                                                                                                                            AATGGTAGGTACAGAGGGCAGCTACACAGCGATGTGATGCGAATCTCAAAAAGCCTATCG 1286
                                                                                                                                                                                                                                                                                                                                                                                                               AGTIGATIGCACCAGAAGIGGITAGCCIAA-CITAGIGAGGGCGAICACCACGGIGIGGT 1465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCAGAATGCCGCGGTGAATACGTTCCCGGGCCTTGTACACACCGCCCGGTCACACCATGGG 1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGATGACTGGGGTGAAGTCGTAACAAGGTAGCCGTAGGGGAACCTGCGGCTGGATCACCT 1525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          817
                                                                                    877
                                                                                                       926
                                                                                                                            937
                                                                                                                                               AGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACAT 986
                                                                                                                                                           GCGUAGAGAUCUGGAGGAAUACCGGUGGCGAAGGCGGCCCCCUGGACGAAGACUGACGCU 757
                                ACCGCCUGGGGAGUACGGCCGCAAGGUUAAAACUCAAAUGAAUUGACGGGGCCCGCACA
                   GAGGCTCGAAAGCGTGGCTAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAAC
                                                             GATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCAGCTAACGCAATAAGTAG
                                                                                                      ACCECCTGGGGAGTTAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCACA
                                                                                                                                                                                                                                                                                                                               TCCTTAGTTACCAGCACTTCGGGTGGGAACTCTAAGGATACTGCCAGTGACAAACTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                   TAGTCCAGATTGGAGTCTGCAACTCGACTCCATGAAGTAGGAATCGCTAGTAATCGCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AND IDENTIFICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 158, Application US/08520946
Patent No. 6372424
GENERAL INFORMATION:
APPLICANT: BROW, MARY ANN D.
APPLICANT: LYAMICHEV, VICTOR I.
APPLICANT: OLIVE, DAVID M.
ITLE OF INVENTION: PATHOGENS
ITITLE OF INVENTION: PATHOGENS
CORRESPONDENCE ADDRESS:
CORRESPONDENCE ADDRESS:
STREET: 220 MONTGOMERY STREET, SUITE 2200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C 1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ċ 1538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-520-946-158
                                                                                                                                                                                         987
                                                                                                                                                                                                                                                                                               1118
                                                                                                                                                                                                                                                                                                                                       1178
                                                                                                                                                                                                                                                                                                                                                                              1238
                   747
                                        758
                                                                                                      867
                                                                                                                          878
                                                                                                                                               927
                                                                                                                                                                                                                                                                          1107
                                                                                                                                                                                                                                                                                                                   1167
                                                                                                                                                                                                                                                                                                                                                            1227
                                                                                                                                                                                                                                                                                                                                                                                                                        1298
                                                                                                                                                                                                                                                                                                                                                                                                                                             1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1478
                                                             807
                                                                                 818
                                                                                                                                                                                                                                  1047
                                                                                                                                                                                                                                                                                                                                                                                                   1287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1538
                                     g
                                                                                                                       셤
                                                                                                                                                              셤
                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                               g
                  ò
                                                           ò
                                                                           qq
                                                                                                    ò
                                                                                                                                              ò
                                                                                                                                                                                      ò
                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                         쉽
                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 8
```

89 CGAGCNGCCGGACGGGTGAGTAATACTTAGGAATCTACCTAGTAGTGGGGGGATAGCTCGG 148 278 GACGATCCCTAGCTGGTCTGAGAGGATGACCAGCCACACTGGAACTGAGACACGCTCCAG 98 ACGAGTGGCGGACGGGTGAGTAATGTCTGGGAAACTGCCTGATGGAGGGGGATAACTACT GGAAACTCGAATTAATACCGCAT-ACGTCTACGGGAGAAAGCAGGGGNTCATTAGACCTT 158 GGAAACGGTAGCTAATACCGCATAACGTCGCAAGACCAAAGAGGGGGACCTTCGGGGCCTC 218 TTGCCATCGGATGTGCCCAGATGGGATTAGCTAGTAGGTGGGGTAACGGCTCACCTAGGC GACGATCTGTAGCTGGTCTGAGAGGATGATCAGCCACACCGGGACTGAGACACGGCCCGG ACT-CTACGGGAGGCAGCAGTGGGGAATATTGGACAATGGNGGGAACCCTGATCCAGCCA TGCCGCGTGTGAAGAAGGCCTTTTGGTTGTAAAGCACTTTTAAGCAGTGAAGAGACTC TAAAGTTAATACCTTTGCTCATTGACGTTACCCGCAGAAGAAGAAGCACGGGCTAACTCCGTG CCAGCAGCCGCGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGGCGTAAAGCG 518 CCAGCAGCCGCGGTAATACGGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCG 567 AGCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCTGGGAACTGCATC 30 GGCGGCAGCCTTAACACATGCAAGTCGAGCGGAAAC-GATGATAGCTTGCTATTAGGCGT GCGCTATTAGATGAGCCTAAGTCGGATTAGCTAGATGGTGGGGGTAAAGGCCTACCATGGC TTCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATAAGCACCGGCTAACTCTGTG Gaps 4, 1542; Length Indels CUMPUTEX KEALMADLE FORM:

MEDIUW TYPE: FIOPPY disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/520,946
FILING DATE:
CLASSIFICATION NUMBER: US/08/520,946
FILING DATE:
ATORNEY/AGENT INFORMATION:
NAME: CARROLL, PETER G.
REGISTRATION NUMBER: FORS-01756
TELEPHONE: (415) 705-8410
TELEPHONE: (415) 705-8410
TELEPHONE: (415) 705-8410
TELEFRANTION FOR SEQ ID NO: 158:
SEQUIENCE CHARACTERISTICS:
SEQUIENCE CHARACTERISTICS:

157 207 217 267 277 327 337 386

97

206

517

397 446 457 999

577

626

Search completed: April 12, 2005, 06:04:08 Job time : 335.942 sec8

; ;

i mis PAGE BLANK (uspto)

```
April 12, 2005, 04:59:42 ; Search time 1132.89 Seconds (without alignments) 8162.777 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 tttgatcatggctccagatt.......acctgcggctggatcacctc 1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Published Applications NA:*

1: /cgn2_6/ptodata/1/pubpna/USO7_PUBCOMB.seq:*
2: /cgn2_6/ptodata/1/pubpna/PCT NEW PUB.seq:*
3: /cgn2_6/ptodata/1/pubpna/USO6_NEW PUB.seq:*
4: /cgn2_6/ptodata/1/pubpna/USO6_NEW PUB.seq:*
5: /cgn2_6/ptodata/1/pubpna/USO6_PUBCOMB.seq:*
6: /cgn2_6/ptodata/1/pubpna/PCTUS_PUBCOMB.seq:*
7: /cgn2_6/ptodata/1/pubpna/PCTUS_PUBCOMB.seq:*
8: /cgn2_6/ptodata/1/pubpna/USO8_PUBCOMB.seq:*
9: /cgn2_6/ptodata/1/pubpna/USO8_PUBCOMB.seq:*
11: /cgn2_6/ptodata/1/pubpna/USO9_PUBCOMB.seq:*
12: /cgn2_6/ptodata/1/pubpna/USO9_PUBCOMB.seq:*
13: /cgn2_6/ptodata/1/pubpna/USO9_NEW PUB.seq:*
14: /cgn2_6/ptodata/1/pubpna/USO9_NEW PUB.seq:*
15: /cgn2_6/ptodata/1/pubpna/USO9_PUBCOMB.seq:*
16: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
16: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
17: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
18: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
19: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
19: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
10: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
10: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
11: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
12: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
13: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
14: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
15: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
16: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
17: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
18: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
19: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
10: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
11: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
12: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11230502
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5615251 segs, 3030001701 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                   OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IDENTITY_NUC Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-979-558A-1
1526
                                                                                                                                                                                                                                                                                                                                                                                                                             Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Searched:
                                                                                                                                                                                                                                                         Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Description	Sequence 41, Appl	Sequence 1, Appli Sequence 5, Appli	7,	Sequence 1, Appli	Sequence 1, Appli	ı,	Sequence 5, Appli	Sequence 5, Appli	Sequence 5, Appli	Sequence 1, Appli
ΩI	US-10-672-787-41	US-U9-/45-4/6-1 US-09-821-016-5	US-09-748-205-1	US-09-793-920A-1	US-09-951-720-1	US-09-791-610-1	US-10-218-519-5	US-10-266-787-5	US-10-252-518-5	US-10-105-305-1
DB	1,1	ע ע	σ	6	σ	10	14	14	14	14
% Query Watch Length DB ID	79.4 269223	1501	1501	1501	1501	1501	1501	1501	1501	1501
* Query Match	79.4	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0	72.0
Score	1211	1098.6	1098.6	1098.6	1098.6	1098.6	1098.6	1098.6	1098.6	1098.6
Result No.	0	9 M	4	S	9	7	ω	6	10	11

sequence 1, Appli sequence 5, Appli sequence 3, Appli sequence 3, Appli sequence 7, Appli sequence 158, Appli sequence 158, Appli sequence 158, Appli sequence 2, Appli sequence 2, Appli sequence 2, Appli sequence 2, Appli sequence 24, Appli sequence 24, Appli sequence 24, Appli sequence 24, Appli sequence 402, Appli sequence 402, Appli sequence 14, Appli sequence 11, Appli sequence 11, Appli sequence 12, Appli sequence 11, Appli sequence 12, Appli sequence 11, Appli sequence 12, Appli sequence 11, Appli sequence 11, Appli sequence 12, Appli
US-10-133-404A-1 US-10-242-696-1 US-10-411-319-1 US-10-649-646-1 US-10-669-646-1 US-10-669-646-1 US-10-673-670-1 US-09-737-297-4 US-09-737-297-4 US-09-737-297-4 US-09-737-297-4 US-09-737-297-4 US-09-10-139-63-3-3 US-09-027-439-7 US-09-027-439-7 US-09-027-439-7 US-09-027-439-7 US-09-941-193A-158 US-10-612-224-1 US-10-612-224-1 US-10-612-224-3 US-10-612-224-3 US-10-612-224-3 US-10-612-224-3 US-10-612-224-3 US-10-612-224-3 US-10-711-241-242 US-10-711-241-242 US-09-912-020-492 US-09-912-020-492 US-09-912-020-492 US-09-912-020-492 US-09-912-020-492 US-09-912-020-492 US-09-912-020-492 US-09-912-020-492 US-10-771-241-492
1100 1100 1100 1100 1100 1100 1100 110
1501 1501 1501 1501 1501 1481 1467 1542 1542 1543 11918 13278 1549 1549 1549 1549 1549 1549 1549 1549
77777777777777777777777777777777777777
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
0098 6 00
10098 .6 10098 .6 10098 .6 10098 .6 10098 .6 10098 .6 10098 .6 10098 .6 10098 .7 10098 .2 10098 .2 100
11111111111111111111111111111111111111
υυ

## ALIGNMENTS

90 GAGCNGCCGGACGGGTGAGTAATTACTTAGGAATCTACCTAGTAGTGGGGGATAGCTCGGG 149
92900 TTAGTGGCGGACGGGTGAGTAATGCTTAGGAATCTGCCTAGTAGTGGGGGATAACTTGGG 92841 US-10-672-787-41/C
US-10-672-787-41/C
| US-10-672-787-41/C
| Sequence 41, Application US/10672787
| Sequence 41, Application US/10672787
| Publication No. US20040067554A1
| GENERAL INFORMATION:
| APPLICANT: LAGACE, Robert, E. |
| APPLICANT: PATTERSON, Chandra | APPLICANT: BERG, Kim, L. |
| TITLE OF INVENTION: NUCLEOTIDE SEQUENCES OF MORAXELLA CATARRHALIS GENOME |
| FILE REFERENCE: ELITRA.025C1 |
| CURRENT APPLICATION NUMBER: US/10/672,787 |
| CURRENT FILING DATE: 2003-09-26 |
| PRIOR APPLICATION NUMBER: 2003-09-26 |
| PRIOR PILING DATE: 2000-66-16 |
| NUMBER OF SEQ ID NOS: 41 |
| SOFTWARE: PERL PROGRAM |
| SEG ID NO 41 |
| SEG 92956 GGCGGCGCGCTTAACACATGCAAGTCGAACG--AAGTTAGGAAGCTTGC--TTCTGATAC 92901 30 GGCGGCAGGCTTAACACATGCAAGTCGAGCGGAAACGATGATAGCTTGCTATAGGCGTC Score 1211; DB 17; Length 269223; Pred. No. 0; 0; Mismatches 127; Indel8 15; Gaps ; TYPE: DNA ; ORGANISM: Moraxella catarrhalis US-10-672-787-41 79.4%; Query Match
Best Local Similarity 90.6
Matches 1361; Conservative LENGTH: 269223 ઠે g ò g

```
Sequence 5, Application US/09821016
Patent No. US20010046692A1
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: Polyhydroxyalkanoate Synthase and Gene Encoding the Same Enzyme FILE REFERENCE: 4051021
CURRENT FILING DATE: 2001-03-30
NUMBER OF SEQ ID NOS: 11
SEQ ID NO 5:
LENGTH: 1501
                                                                                                                                                                                                                                                                                                                                                GAGCNGCCGGACGGGTGAGTAATACTTAGGAATCTACCTAGTAGTGGGGGATAGCTCGGG 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCCTACGGGAGGCAGCAGTGGGGAATATTGGACAATGGGCGAAAGCCTGATCCAGCCAT 363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACG 807
                                                                                                                                                                                                                                                                                                                                                                CGCTATTAGATGAGCCTAAGTCGGATTAGCTAGATGGTGGGGTAAAGGCCTACCATGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACGATCTGTAGCTGGTCTGAGAGGATGATCAGCCACACCGGGACTGAGACACGGCCCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CT-CTACGGGAGGAGCAGTGGGGAATATTGGACAATGGNGGGAACCCTGATCCAGCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGCAGCCGCGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ceragararaggaacaccagreeceaaeeeeacaccreeacrearacreacacre
                                                                                                                                                                                                                                                                                                             GGCGGCAGGCCTAACACATGCAAGTCGAGCGG--ATGACGGGGGGCTTGCTCCTGAATTCA
                                                                                                                                                                                                                                                                                                                                                                                                 GAAACTCGAATTAATACCGCATACGT - CTACGGGAGAAAGCAGGGGNTCATTAGACCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           184 CGCTATCAGATGAGCCTAGGTCGGATTAGCTAGTTGGTGAGGTAATGGCTCACCAAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            244 Acéarcceraacresreresacasearcaseacacacacacacacacacacacacacacaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCGCGTGTGTGAAGAAGGTCTTCGGATTGTAAAGCACTTTAAGTTGGGAGGAAGGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 inaaccinainacerragicaritaceacacacannaacceccinaacicicic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGCAGCCGCGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCTGGGAACTGCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAAACTGTTAGGCTAGAGTAGGTGAGGGAAGTAGAATTTCAGGTGTAGCGGTGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCATCATACTGACACTG
                                                                                                                                                                                                                                                                                               GGCGGCAGGCTTAACACATGCAAGTCGAGCGGAAACGATGATAGCTTTGCTATTAGGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCGCGTGTGTAAAAAGGCCTTTTGGTTGTAAAGCACTTTAAGCAGTGAAGAAGACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCGGTTAATACCCCGGGGACGATGACATTAGCTGCAGAATAAGCACCGGCTAACTCTGTGC
                                                                                                                                                                                                                                                                       ..
6
                                                                                                                                                                                                                                            Length 1501;
                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                             6
                                                                                                                                                                                                                                           Score 1098.6; DB 9;
Pred. No. 1.2e-288;
0; Mismatches 202;
                                                                                                                                                                               TYPE: DNA
ORGANISM: Pseudomonas jessenii P161 ; BP-7376
FEATURE:
                                                                                                                                                                                                                                           72.0%;
85.9%;
                                                                                                                                                                                                                                         Query Match
Best Local Similarity 85.9°
Matches 1287; Conservative
                                                                                                                                                                                                         ; FEATURE:
US-09-821-016-5
                                                                                                                                                                                                                                                                                               30
                                                                                                                                                                                                                                                                                                                                                                                                  150
                                                                                                                                                                                                                                                                                                                      σ
                                                                                                                                                                                                                                                                                                                                                90
                                                                                                                                                                                                                                                                                                                                                                                                                                                  209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    269
                                                                                                                                                                                                                                                                                                                                                                         67
                                                                                                                                                                                                                                                                                                                                                                                                                          124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   748
                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                  음 장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ⋧
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ⋧
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTTGATTGCACCAGAAGTGGTTAGCCTAA-CTTAGTGAGGGCGATCACCACGGTGTGGT .1465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                rcadaargreecegreaaracerreceegecrreracacaceeceercacaccareeg 1383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTGGGTTGCACCAGAAGTAGCTAGTCTAACCTTCGGGAGGACGGTTACCACGGTGTGAT 1443
                                                                                                                                                                                                                                                        807
                                                                                                                                                                                                        747
 507
                         483
                                                  567
                                                                         543
                                                                                                    627
                                                                                                               687
                                                                                                                                                                               663
                                                                                                                                                                                                                               723
                                                                                                                                                                                                                                                                                 783
                                                                                                                                                                                                                                                                                                          867
                                                                                                                                                                                                                                                                                                                                    843
                                                                                                                                                                                                                                                                                                                                                            927
                                                                                                                                                                                                                                                                                                                                                                                     903
                                                                                                                                                                                                                                                                                                                                                                                                              987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1444 TCATGACTGGGGTGAAGTCGTACCAAGGTAGCCGTAGGGGAACCTGCGGCTGGATCAC 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGATGACTGGGGTGAAGTCGTAACAAGGTAGCCGTAGGGGAACCTGCGGCTGGATCAC 1523
                                                                                                                                                                                                                                                    AGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCTGGTAGTCCACGCCGTAAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TAGTCCAGATTGGAGTCTGCAACTCGACTCCATGAAGTAGGAATCGCTAGTAATCGCGGA
                                                                 CAGCAGCCGCGGTAATACAGAGGGTGCAAACGTTAATCGGAATTACTGGGCGTAAAAGCGC
                                                                                                                                                                                                                    CCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCACAA
                                                                                                                                                                                                                                                                                                                                                                                                           GCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACATA
                                                                                                                                                                                                                                                                                                                                                                                                                         CCTTAGTTACCAGCACGTAATGGTGGCACTCTAAGGAGACTGCCGGTGACAAACCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAAGGIGGGGATGACGTCAAGTCATCATGGCCCTTACGGCCTGGGCTACACACGTGCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCTGGGAACTGCATCT
                                                                                                                                                      GAAACTGTTAGGCTAGAGTGAGGTGAGAGGGAAGTTAGAATTTCAGGTGTAGCGGTGAAATG
                                                                                                                                                                            604 AAAACTGACAAGCTAGAGTATGGTAGAGGTGGTGGAATTTCCTGTGTAGCGGTGAAATG
                                                                                                                                                                                                     CGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCATCATACTGACACTG
                                                                                                                                                                                                                                                                                                          ATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCAGCTAACGCAATAAGTAGA
                                                                                                                                                                                                                                                                                                                         cceccreegeagraceccecaaegrraaacrcaaareaarreacegeegeccecaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                              CACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTGCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGTCGTCAGCTCGTGTCGTGAGATGTTGGGTTAAGTCCCGCAACGAGCGCAACCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGTCGTCAGCTCGTGACGTTGGGTTAAGTCCCGTAACGAGCGCAACCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTTAGTTACCAGCAC - TTCGGGTGGGAACTCTAAGGATACTGCCAGTGACAAACTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAAGGCGGGGACGTCAAGTCATGACCCTTACGACCAGGGCTACACGTGCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AATGGTAGGTACAGAGGCCAGCTACACAGCGATGTGATGCGAATCTCAAAAAGCCTATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCAGAATGCCGCGGTGAATACGTTCCCGGGCCTTGTACACACCGCCCGTCACACCATGGG
                       424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1144
                                                 508
                                                                         484
                                                                                                  568
                                                                                                                            544
                                                                                                                                                    628
                                                                                                                                                                                                       688
                                                                                                                                                                                                                                                        748
                                                                                                                                                                                                                                                                                724
                                                                                                                                                                                                                                                                                                          808
                                                                                                                                                                                                                                                                                                                                 784
                                                                                                                                                                                                                                                                                                                                                          898
                                                                                                                                                                                                                                                                                                                                                                                     844
                                                                                                                                                                                                                                                                                                                                                                                                                                     904
                                                                                                                                                                                                                                                                                                                                                                                                                                                              988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1384
                                                                                                                                                                                                                                                                                                                                                                                                             928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1466
                   요
                                                                  셤
                                                                                               ò
                                                                                                                    쉽
                                                                                                                                            ò
                                                                                                                                                                      名 &
                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                         6 음
                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                          8 6 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 %
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
δ
                                         ठे
                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
```

423

447

483 567

507

603

687 663 747

543 627 723

9

99

123

30 GGCGGCAGGCTTAACACATGCAAGTCGAGGGGAAACGATGATAGCTTGCTATTAGGCGTC 89	9 GGCGGCAGACTAACACATGCAAGTCGAGCGGATGACGGAGCTTCTCTCAAATTCA 66 90 GAGCNGCCGGACGGGTGATAATACTTAGGAATCTACCTAGTAGTGGGGGATAGCTCGGG 149	67 GCGGCGGACGGGTGAGTAATGCCTAGGAATCTGCCTGGTAGTGGGGGACAACGTCTC 123		CGCTATCAGATGAGCCTAGGTCGGATTAGCTAGTTGGTGAGGTAATGGCTCACCAAGGCG	289 ACGATCIGIACCIGGICIGAGASGALCACCACACCIGGACCIGAGACCGAGASGACGAGAGACGAGAGACGAGAGACGAGAGACGAGACGAGACGAGACGAGACGA	4 CTCCTACGGGAGCAGCAGTGGGGAATATTGGACAATGGGGGAAAGCCTGATCCAGCAT A CTCCTACGGGAGCAGCAGCAGTGGGAATATTGGAAAAGCCATGAAAGACAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGA			CAGCAGCCGCGGTAATACAGAGGGTGCAAAGCGTTAATCGGAATTACTGGGCGTAAAGCGC GCGTAGGTGGGTTGATAAGAGAGTGGAAATCCCCCGGGCTTAAACGGGAATTACTGGGAACTGCATGCA	GCGTAGGTGGTTTGTTAAGTTGGATGTGAAAGCCCCGGGCTCAACCTGGGAACTGCATTC	628 GAAATTGTTAGGCTAGAGTAGGTGAGAGGAAGTAGAATTTCAGGTGTAGCGGTGAAATG 687	688 CGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCATCATACTGACACTG 747	aggetegaaagegtaggaaacaggattagataceetggtagtecaegeegaaace 	808 AIGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCAGCTAACGCAATAAGTAGA 867	868 CCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCGCACAA 927 	928 GCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACATA 987 	988 CACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTGCATGG 1047 	1048 CTGTCGTCAGCTCGTGAGATGTTGGGTTAAGTCCCGCAACGAGCGCAACCCCTTGT 1107 
λ <sub>0</sub>	oy Db	qa XX	유 <u> </u>	Q Q	3 8 8	3 음 &	i 43 &	ପ ଧି	3 A 8	7 음	රු සි	\dagger \text{\frac{1}{2}}	o, da	\$ a	& 43	& 8	y da	S S
Db 724 AGGTGCGAAAGCGTGGGGAAGAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAAACG 783	Qy 808 AIGTCTACTAGTCGGTCGCCTTGAGACACTTAGTGACGCAGCTAACGCAATAAGTAGA 867	Qy 868 CCGCCTGGGAGTACGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCGCACAA 927	Oy         928         GCGGTGGAGCATTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACATA         987           Db         904         GCGGTGGAGCATGTGGTTTAATTCGAAGCTGAAACCTTAACTACGAAACCTTAACTACGAAACTTTAACTACGAAACTTTAACTACGAAACTTTAACTACGAAAACTTTAACAACTACAAAAAAAA	988 CACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTGCATGG	1048 CTGTCGTCAGCTCGTGTGAGATGTTGGGTTAAGTCCCGCAACGCGCAACGTAACGTCCTGCGAACGCGCAACGTAAGTCCTCGCAACGCGCAACGTAAGTCCTCAGCAACGTAAAGTCCTCAGCAACGTAAAGTCCCGAAACGTTAAAGTCCCGAAACGTTAAAGTCCCGAAACGTTAAACGAAACGTTAAACGAAACGTTAAAAGTCCAAAAACGTCAAAAACGTAAAAACACACAAAACAAAACGTAAAAAAAA	CCTTAGTTACCAGCAC-TTCGGGTGGGAACTCTAAGGATACTGCCAGTGACAAACTGGAG	GCTAC       GCTAC		1287 TAGTCCAGATTGGGACTCGGCCGCGGGGGGACGGGGGGGG	1347 TCAGAATGCCGCGGTGAATACGTTCCCGGGCCTTGTACACACCGCCGGTCACATGGG	DD 1324 TCAGAATGTCGCGGTGAATACGTTCCCGGGCCTTGTACACCCGCCCG	Db 1384 AGIGGGTIGCACCAGAAGIAGCTAGICTAACCTICGGGAGGACGGTIACCAGGGTGAT 1443  Qy 1466 CGAIGACTGGGGTGAAGTCGTAACAAGGTAGGCGTAGGGAACCTGCGGGTCGAICAC 1523		RESULT 4 US-09-748-205-1 ; Sequence 1, Application US/09748205 ; Patent No. US20020022253A1	GENERAL INFORMATION:  APPLICANT: Canon Inc.  ITILE OF INVENTION: Polyhydroxyalkanoate its manufacturing method, and microorganism  ITILE OF INVENTION: those are used for the method.	; FILE REFERENCE: 4351009 ; CURRENT APPLICATION NUMBER: US/09/748,205 ; CURRENT FILING DATE: 2000-12-27 ; NUMBER OF SEQ ID NOS: 1	; SEQ ID NO 1 ; TYPE: DNA ; TYPE: DNA ; ORGANISM: Pseudomonas jessenii 161 strain.	US-U9-748-205-1 Query Match 72.0%; Score 1098.6; DB 9; Length 1501; Best Local Similarity 85.9%; Pred. No. 1.2e-288; Matches 1287; Conservative 0; Mismatches 202; Indels 9; Gaps 6;

CTCCTACGGGAGGCAGCAGTGGGGAATATTGGACATGGGCGAAAGCCTGATCCAGCCAT  GCCGCGTGTGTGAAGAGCCTTTTGGTTGTAAAGCACTTTAAGCAGGAAGGA	12   AGGTGCGAAAGCGTGGGGAGCATAGAGTCCTGGTAGTCCACGCGTAACG   183
4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6
1108   CCTTAGTTACCAGCAC-TTCGGGTGGGAACTCTAAGGATACTGCCAGTGACAAACTGGAG   1166   Db   1084   CCTTAGTTACCAGCACTTACGGTGGAACTCTAAGGAACTGCGGTGACAAACCGGAG   1143   CCTTAGTTACCAGCACTCTACGGTCCTCTACGACTGCGGTGACACCGGAG   1143   OAAGGTGGGGACCACTCATCACGCCTTACGACCTACACCACACCTACCACCTACCACCACACTACTACGACTACGACTACGACTACGACTACGACTACGACTACGACTACGACTACGACTACGACTACGACTACGACTACGACTACGACTACGACTACACTACACACCACACACA	Sequence 1, Application US/09793920A

9

603 687 663 747 723 807 783 867

```
904 GCGGTGGAGCATGTGGTTTAATTCGAAGCAACGCGAAGAACCTTACCAGGCCTTGACATC 963
                                                                                                                                                                                                                                                                                                                                                                                AGGTGCGAAAGCGTGGGGAGCAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACG
                                                                                                                                                                                                                                                  CCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCACAA
GCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCTGGGAACTGCATCT
             GCGTAGGTGTTTATATATGTTGATGTGAAAGCCCCGGGCTCAACCTGGGAACTGCATTC
                                              GAAACTGTTAGGCTAGAGTAGGTGAGGGAAGTAGAATTTCAGGTGTAGGAGTGAAATG
                                                               CGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCATCATACTGACACTG
                                                                                                            AGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACG
                                                                                                                                                                                         ATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCAGCTAACGCAATAAGTAGA
                                                                                                                                                                                                     ATGTCAACTAGCCGTTGGGACCTTGAGCTCTTAGTGGCGCAGCTAACGCATTAAGTTGA
                                                                                                                                                                                                                                       CCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCACAA
                                                                                                                                                                                                                                                                                     GCGGTGGAGCATGTGGTTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACATA
                                                                                                                                                                                                                                                                                                                                    CACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTGCATGG
                                                                                                                                                                                                                                                                                                                                                 US-09-791-610-1
999
                       544
                                            628
                                                                    604
                                                                                                                  664
                                                                                                                                          748
                                                                                                                                                                724
                                                                                                                                                                                         808
                                                                                                                                                                                                              784
                                                                                                                                                                                                                                       868
                                                                                                                                                                                                                                                             844
                                                                                                                                                                                                                                                                                     928
                                                                                                                                                                                                                                                                                                                                    988
                                                                                                                                                                                                                                                                                                                                                         964
                                                                                                                                                                                                                                                                                                                                                                                                                               1,108
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1466
                                                                                            688
8 8 8
                                                            6
                                                                                                            δ
                                                                                                                                                            g
                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                      셤
                                                                                         ò
                                                                                                                                  ò
                                                                                                                                                                                      ò
                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                               8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCCTACGGGAGGCAGCAGTGGGGAATATTGGACAATGGGCGAAAGCCTGATCCAGCCAT 363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAAAGGGACGCTAATACCGCATACGTCCTACGGAGAAAGCAGGGGACCTTCGGGCCTTG 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1523
                                1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                99
                                                                                                                                        Thereof
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGCNGCCGGACGGGTGAGTAATACTTAGGAATCTACCTAGTAGTGGGGGATAGCTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAAACTCGAATTAATACGCATACGT - CTACGGGAGAAAGCAGGGGUTCATTAGACCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGCTATCAGATGAGCCTAGGTCGGATTAGCTAGTTGGTGGGGTAATGGCTCACCAAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCGCGTGTGTGAAGAGGTCTTCGATTGTAAAGCACTTTAAGTTGGGAGGAAGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATAAGCACCGGCTAACTCTGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCGGCAGGCTTAACACATGCAAGTCGAGCGGAAACGATGATAGCTTGCTATTAGGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                       G----CGGCGGACGGGTGAGTAATGCCTAGGAATCTGCCTGGTAGTGGGGGACAACGTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGCTATTAGATGAGCCTAAGTCGGATTAGCTAGATGGTGGGGTAAAGGCCTACCATGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACGATCTGTAGCTGGTCTGAGAGGATGATCAGCCACACCGGGACTGAGACACGGCCCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CT-CTACGGGAGGCAGCAGTGGGAATATTGGACAATGGNGGGAACCCTGATCCAGCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCGCGTGTGTGAAGAGGCCTTTTGGTTGTAAAGCACTTTAAGCAGTGAAGAAGACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TAACCTAATACGTTAGTGTTTTTGACGTTACCGACAGAATAAGCACCGGCTAACTCTGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                     1444 TCATGACTGGGGTGAAGTCGTACCAAGGTAGCCGTAGGGGAACCTGCGGCTGGATCAC
                                                                                                                                        Manufacturing Method
                                                                                                                                                                                                                                                                                                                                                                                           Length 1501;
                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                          Score 1098.6; DB 9; Length
Pred. No. 1.2e-288;
0; Mismatches 202; Indels
                                                                              Sequence 1, Application US/09951720
Sequence 1, Application US/09951720
Setent No. US20020160467A1
GENERAL INFORMATION:
APPLICANT: Canon Kabushiki Kaisha
ITLE OR INVENTION: Polyhydroxyalkanoate and
FILE REFERENCE: 4477001
CURRENT APPLICATION NUMBER: US/09/951,720
CURRENT FILING DATE: 2000-09-14
PRIOR APPLICATION NUMBER: US/09/02000
JP 165239/2001
JP 165239/2001
SPIOR FILING DATE: 2000-09-14
PRIOR FILING DATE: 2000-09-14
                                                                                                                                        and
                                                                                                                                                                                                                                                                                                                                             ; TYPE: DNA
; OPGANISM: Pseudomonas jessenii P161 strain.
0.09581.720-1
                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 85:9%;
Matches 1287; Conservative 0
                                                                                                                                                                                                                                                                                            2001-09-11
NUMBER OF SEQ ID NOS:
SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                  LENGTH: 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                         30
                                                                                                                                                                                                                                                                                                                                                                                                                                                              σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               184
         ò
                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6 6 6 6 6 6 6 6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
```

1047 1023 1107

843

927 903 987

Sequence 1, Application US/09791610
Publication No. US20030100084A1
GENERAL INFORMATION:
APPLICANT: Canon Inc.
TITLE OF INVENTION: Polyhydroxyalkanoate containing 3-hydroxybenzoylalkanoic acid as TITLE OF INVENTION: monomer unit, and method for producing the same. 1083 1166 1226 1203 1286 1263 1346 1323 1406 1383 1465 1143 1384 AGTGGGTTGCACCAGAAGTAGCTAGTCTAACCTTCGGGAGGACGGTTACCACGGTGTGAT 1443 CGATGACTGGGGTGAAGTCGTAACAAGGTAGCCGTAGGGGAACCTGCGGCTGGATCAC 1523 1444 TCATGACTGGGGTGAAGTCGTACCAAGGTAGCCGTAGGGGAACCTGCGGCTGGATCAC 1501 1144 GAAGGTGGGGATGACGTCATCATCATCGCCCTTACGGCCTGGGCTACACGTGCTAC TCAGAATGCCGCGGTGAATACGTTCCCGGGCCTTGTACACACGCCCGTCACACCACCATGGG 1324 TCAGAATGTCGCGGTGAATACGTTCCCGGGCCTTGTACACACGCCCGTCACACCACCACGGG AGTTGATTGCACCAGAAGTGGTTAGCCTAA-CTTAGTGAGGGCGATCACCACGGTGTGGT CCTTAGTTACCAGCAC-TTCGGGTGGGAACTCTAAGGATACTGCCAGTGACAAACTGGAG certractraccaccaccardinargerescaererraagagaerescegreacaaaccegag GAAGGCGGGGACGTCAAGTCATGACCTTACGACCAGGGCTACACGTGCTAC AATGGTAGGTACAGAGGCCAGCTACACAGCGATGTGATGCGAATCTCAAAAAGCCTATCG 1287 TAGTCCAGATTGGAGTCTGCAACTCCATGAAGTAGGAATCGCTAGTAATCGCGGA

```
; Sequence 5, Application US/10218519; Publication No. US20030049806A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      72.0%;
Similarity 85.9%;
37; Conservative C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE: CDNA to 16S rRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Simi
Matches 1287;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-218-519-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; FEATURE: CD!
US-10-218-519-5
                                                                                              964
                                                                                                                         1048
                                                                                                                                                                               1108
                                                                                                                                                                                                                                  1167
                                                                                                                                                                                                                                                                                                                                            1287
                                                                     988
                                                                                                                                                                                                                                                                                        1227
                                                                                                                                                                                                                                                                                                                                                                                                  1347
                 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
                                       Ω
                                                                    ò
                                                                                          g
                                                                                                                  ò
                                                                                                                                                 a
                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                         g
                  ઠે
                                                                                                                                                                              ð
                                                                                                                                                                                                                                 \overset{\sim}{\circ}
                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                ;
9
                                                                                                                                                                                                                                                                                                                                                                                                               328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              363
                                                                                                                                                                                                                                                                                                                                183
                                                                                                                                                                                                                                                                                                                                                                                    243
                                                                                                                                                                                                                                                                                                                                                                                                                                          303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            903
                                                                                                                                                                                           83
                                                                                                                                                                                                                     99
                                                                                                                                                                                                                                                               ---CGGCGGACGGGTGATATGCCTAGGAATCTGCCTGGTAGTGGGGGACGTCTC
                                                                                                                                                                                                                                                                                                  GAAACTCGAATTAATACCGCATACGT-CTACGGGAGAAAGCAGGGGNTCATTAGACCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCGTAGGTGGTTTGTTAAGTTGGATGTGAAAGCCCCGGGCTCAACCTGGGAACTGCATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30 GGCGCCAGCCTTAACACATGCAAGTCGAGCGGAAACGATGATAGGCTTGCTATTAGGCGTC
                                                                                                                                                                                                                GGCGGCAGGCCTAACACATGCAAGTCGAGCGG--ATGACGGGAGCTTGCTCCTGAATTCA
                                                                                                                                                                                                                                              GAGCNGCCGGACGGGTGAGTAATACTTAGGAATCTACCTAGTAGTGGGGGATAGCTCGGG
                                                                                                                                                                                                                                                                                                                           GAAAGGGACGCTAATACCGCATACGTCCTACGGGAGAAAGCAGGGACCTTCGGGCCCTTC
                                                                                                                                                                                                                                                                                                                                                         CGCTATTAGATGAGCCTAAGTCGGATTAGCTAGATGGTGGGGTAAAAGGCCTACCATGGCG
                                                                                                                                                                                                                                                                                                                                                                                   cectaticadatidadectradeteddatradetadridetedatadectedecadede
                                                                                                                                                                                                                                                                                                                                                                                                              ACGATCTGTAGCTGGTCTGAGAGGATGATCAGCCACACCGGGACTGAGACACGGCCCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                         244 ACGATCCGTAACTGGTCTGAGAGGATGATCAGTCACTGGAACTGAGACACGGTCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CT-CTACGGGGGGGGGGGGGGATATTGGACAATGGNGGGAACCCTGATCCAGCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCCTACGGGAGGCAGCAGTGGGAATATTGGACAATGGGCGAAAGCCTGATCCAGCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCGCGTGTGAAGAAGGCCTTTTGGTTGTAAAGCACTTTAAGCAGTGAAGAAGACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 364 GCCGCGTGTGTGAAGAGGTCTTCGGATTGTAAAGCACTTTAAGTTGGGAGGAAGGCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATAAGCACCGGCTAACTCTGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>raaccraaraccraacrerrrigaccriaaccraacacacacceccecraacrerere</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGCAGCCGCGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGCAGCCGCGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCTGGGAACTGCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAAACTGTTAGGCTAGAGTGAGAGGGAAGTAGAATTTCAGGTGTAGCGGTGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            604 AAAACTGACAAGCTAGAGTATGGTAGAGGGTGGTGGAATTTCCTGTGTAGCGGTGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCATCATACTGACACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ceragararaggaaggaacaccagreeceaageceaccaccreeacrearacreacacre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCAGCTAACGCAATAAGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATGTCAACTAGCCGTTGGGAGCCTTGAGCTCTTAGTGGCGCAGCTAACGCATTAAGTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          844 CCGCCTGGGGGGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGGACAA
                                                                                                                                                                Gaps
                                                                                                                                      Length 1501;
                                                                                                                                                                6
                                                                                                                                     Score 1098.6; DB 10; Lengt
Pred. No. 1.2e-288;
0; Mismatches 202; Indels
                                                                 LENGTH: 1501
TYPE: DNA
ORGANISM: Pseudomonas jessenii 161 strain.
FILE REFERENCE: 4396021
CURRENT APPLICATION NUMBER: US/09/791,610
CURRENT FILING DATE: 2002-09-30
NUMBER OF SEQ ID NOS: 1
SEQ ID NO 1
                                                                                                                                   Query Match
Best Local Similarity 85.9%;
Matches 1287; Conservative
                                                                                                          US-09-791-610-1
                                                                                                                                                                                                                                                                        Ö
                                                                                                                                                                                                                                              90
                                                                                                                                                                                                                                                                       63
                                                                                                                                                                                                                                                                                                   150
                                                                                                                                                                                                                                                                                                                              124
                                                                                                                                                                                                                                                                                                                                                         209
                                                                                                                                                                                                                                                                                                                                                                                   184
                                                                                                                                                                                                                                                                                                                                                                                                              269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     784
                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         දු පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            음. ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
APPLICANT: Yano, Tetsuya
APPLICANT: Mamura, Takeshi
APPLICANT: Imamura, Takeshi
APPLICANT: Suda, Sakae
APPLICANT: Suda, Sakae
APPLICANT: Suda, Sakae
APPLICANT: Honna, Teutomu
TITLE OF INVENTION: Polyhydroxyalkanoate Synthase and Gene Encoding the Same Enzyme
FILE REFERENCE: 03500.015225.130
CURRENT APPLICATION NUMBER: US/10/218,519
PRIOR PELING DATE: 2001-03-30
NUMBER OF SEQ ID NOS: 11
SOFTWARE: Microsoft Word
SEQ ID NO S: LENGTH: 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1406
                                                                                                                                                                                                                                                                                                                                                                                             1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1264 TAGTCCGGATCGCAGTCTGCAACTCGACTGCCTGAAGTCGGAATCGCTAGTAATCGCGAA 1323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1407 AGTTGATTGCACCAGAAGTGGTTAGCCTAA-CTTAGTGAGGGCGATCACCACGGTGTGGT 1465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
987
                                                     963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1466 CGATGACTGGGGTGAAGTCGTAACAAGGTAGCCGTAGGGGAACCTGCGGGTGGATCAC 1523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1444 TCATGACTGGGGTGAAGTCGTACCAAGGTAGCCGTAGGGGAACCTGCGGCTGGATCAC 1501
                                904 GCGGTGGAGCATGTGGTTTAATTCGAAGCAACGCGAAGAACCTTACCAGGCCTTGACATC
                                                                                                             CACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTGCATGG
                                                                                                                                                CTGTCGTCAGCTCGTGTGGAGTGTTGGGTTAAGTCCCCGCAACGAGCGCAACCTTGT
                                                                                                                                                                                                                                                                                                                                        CCTTAGTTACCAGCAC-TTCGGGTGGGAACTCTAAGGATACTGCCAGTGACAAACTGGAG
                                                                                                                                                                                                                                                                                                                                                                                          1084 CCTTAGTTACCAGCACGTAATGGTGGGCACTCTAAGGAGACTGCCGGTGACAAACCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1324 TCAGAATGTCGCGGTGAATACGTTCCGGGCCTTGTACACACCGCCCGTCACACGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30 GGCGGCAGGCTTAACACATGCAAGTCGAGCGGAAACGATGATAGCTTGCTATTAGGCGTC
GCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACATA
                                                                                                                                                                                                                                                                            1024 CTGTCGTCAGCTCGTGTCGTGAGATGTTGGGTTAAGTCCCGTAACGAGCGCAACCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AATGGTAGGTACAGAGGCCAGCTACACACGCGATGTGATGCGAATCTCAAAAAGCCTATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TAGTCCAGATTGGAGTCTGCAACTCGACTCCATGAAGTAGGAATCGCTAGTAATCGCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCAGAATGCCGCGGTGAATACGTTCCCGGGCCTTGTACACACCGCCCGTCACACACCATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAAGGCGGGGACGACGTCAAGTCATCATGGCCCTTACGACCAGGGCTACACACGTGCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 1098.6; DB 14; Lengt
Pred. No. 1.2e-288;
0; Mismatches 202; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Pseudomonas jessenii P161 ; BP-7376 FEATURE:
```

1406

1383 1465

1286 1263 1346

1226

ò

8 6 8 6 8 6 8 6 8

```
APPLICANT: Yano, Tetsuya
APPLICANT: Imamura, Takeshi
APPLICANT: Imamura, Takeshi
APPLICANT: Imamura, Takeshi
APPLICANT: Imamura, Takeshi
APPLICANT: Homa, Tsutomu
TITLE OF INVENTION: Polyhydroxyalkanoate Synthase and Gene Encoding the Same J
FILE REFERENCE: 03500.015225.3
FILE OF INVENTION: POLYMER: 105/10/266,787
CURRENT APPLICATION NUMBER: JP 2000-095004
PRIOR APPLICATION NUMBER: JP 2000-033.30
NUMBER OF SEQ ID NOS: 11
SOFTWARE: Microsoft Word
                                                                                                                                                                                                                                                                                                                     1264 TAGTCCGGATCGCAGTCTGCAACTCGACTGCGTGAAGTCGGAATCGCTAGTAATCGCGAA 1323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1384 AGTGGGTTGCACCAGAAGTAGCTAGTCTAACCTTCGGGAGGACGGTTACCACGGTGTGAT 1443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGATGACTGGGGTGAAGTCGTAACAAGGTAGCCGTAGGGGAACCTGCGCTGGATCAC 1523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1444 TCATGACTGGGGTGAAGTCGTACCGTAGGGGAACCTGCGGCTGGATCAC 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGCTATCAGATGAGCCTAGGTCGGATTAGCTAGTGAGGTGAGGTAATGCCTCACCAAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACGATCTGTAGCTGGTCTGAGAGGATGATCAGCCACACGGGACTGAGACACGGCCGGA
                                                             1144 GAAGGTGGGGATGACGTCAAGTCATCATGGCCCTTACGGCCTGGGCTACACACGTGCTAC
                                                                                                                                         AATGGTAGGTACAGAGGCAGCTACACAGCGATGTGATGCGAATCTCAAAAAGCCTATCG
                                                                                                                                                                              1287 TAGTCCAGATTGGAGTCTGCAACTCGACTCCATGAAGTAGGAATCGCTAGTAATCGCGGA
                                                                                                                                                                                                                                                                                                                                                                               1324 reagaargregegergaaracerrecegegecrireracaeececececereaeae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGTTGATTGCACCAGAAGTGGTTAGCCTAA-CTTAGTGAGGGCGATCACCACGGTGTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9 eccecacidecria de la comparación de la comp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         90 GAGCNGCCGGACGGGTGAGTAATACTTAGGAATCTACCTAGTAGTGGGGGGATAGCTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 150 GAAACTCGAATTAATACCGCATACGT-CTACGGGAGAAAGCAGGGGNTCATTAGACCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGCTATTAGATGAGCCTAAGTCGGATTAGCTAGATGGTGGGGGTAAAGGCCTACCATGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u> GGCGCCAGGCTTAACACACATGCAAGTCGAGCGGAAACGATGATAAGCTTGCTATTAGGCGTC</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1501;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 1098.6; DB 14
Pred. No. 1.2e-288;
0; Mismatches 202;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
ORGANISM: Pseudomonas jessenii Pići ; BP-7376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 5, Application US/1026787; Publication No. US20030082777A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 72.0%;
Best Local Similarity 85.9%;
Matches 1287; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDNA to 16S rRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-266-787-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-266-787-5
                           1167
                                                                                                                                               1227
                                                                                                                                                                                                      1204
                                                                                                                                                                                                                                                                                                                                                                                  1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                         요
                                                                                                                                                                                             g
                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCTTAGTTACCAGCACGAAATGGTGGGCACTCTAAGGAGACTGCCGGTGACAAACCGGAG 1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTGCATGG 1047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGTCGTCAGCTCGTGTCGTGAGATGTTGGGTTAAGTCCCGTAACGAGCGCAACCCTTGT 1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          807
                                                                                                                                                                                                                                                                                            268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCGCGTGTGTGAAGAAGGTCTTCGGATTGTAAAGCACTTTAAGTTGGGAGGAAGGCAT 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               747
                                                          149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGTAGATATAGGAAGGAACACCAGTGGCGAAGGCGACCACCTGGACTGATACTGACACTG 723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCAGCTAACGCAATAAGTAGA 867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Argreactascegridasaccrisascretrascescesascraacscarriaastrea 843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCACAA 927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACATA 987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCGGTGGAGCATGTGGTTTAATTCGAAGCAACGCGAAGAACCTTACCAGGCCTTGACATC 963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCGCCTGGGGGGGTACGGCCGCAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCACAA
                                                          GAGCNGCCGGACGGGTGAGTAATACTTAGGAATCTACCTAGTAGTGGGGGATAGCTCGGG
                                                                                                                                                                                                                   TAACCTAATACGTTAGTGTTTTGACGTTACCGACAGAATAAGCACCGGCTAACTCTGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGCAGCCGCGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCTGGGAACTGCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGTAGGTGGTTTGTTAAGTTGGATGTGAAAGCCCCGGGCTCAACCTGGGAACTGCATTC
                                                                                              CGCTATTAGATGAGCCTAAGTCGGATTAGCTAGATGGTGGGGGTAAAGGCCTACCATGGCG
                                                                                                                                                                                                                                                                                                                                                cectraticadatidadectradetedeatradetraditidadeatradecteaedece
                                                                                                                                                                                                                                                                                                                                                                                                             ACGATCTGTAGCTGGTCTGAGAGGATGATCAGCCACACGGGACTGAGACACGGCCCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Acgarccgraacrggrcrgagaggargarcagrcacacrggaacrgagacaggacaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CT-CTACGGGAGGCAGCAGTGGGAATATTGGACAATGGNGGGAACCCTGATCCAGCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCGCGTGTGTGAAGAAGGCCTTTTGGTTGTAAAGCACTTTTAAGCAGTGAAGAAGACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGCAGCCGCGGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAAACTGTTAGGCTAGAGTAGGTGAGAGGGAAGTAGAATTTCAGGTGTAGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAACTGACAAGCTAGAGTATGGTAGAGGGTGGTGGAATTTTCCTGTGTAGCGGTGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCATCATACTGACACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGTCGTCAGCTCGTGTCGTGAGATGTTGGGTTAAGTCCCGCAACGAGCGCAACCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTTAGTTACCAGCAC - TTCGGGTGGGAACTCTAAGGATACTGCCAGTGACAAACTGGAG
GGCGGCAGGCCTAACACATGCAAGTCGAGCGG--ATGACGGGAGCTTGCTCGAATTCA
                                                                                                                                                                              GAAACTCGAATTAATACCGCATACGT - CTACGGGAGAAAAGCAGGGGNTCATTAGACCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATAAGCACCGGCTAACTCTGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1084
                                                          9
                                                                                                                    67
                                                                                                                                                                              150
                                                                                                                                                                                                                                  124
                                                                                                                                                                                                                                                                                            209
                                                                                                                                                                                                                                                                                                                                                   184
                                                                                                                                                                                                                                                                                                                                                                                                                569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4 2 4 2 4 2
```

6 8 6 8 6 8 6 8 6 8 6 8 6 8 6

Enzyme

Ġ

328

243

268

183

208

149 123

99

8 & 8 & 8	244 ACGATCCGTAACTGGTCTGAGAGGATGATCAGTCACACTGGAACTGAGACACGGTCCAGA 303 329 CT-CTACGGAGGCAGCAGCAGGAATATTGGACAATGGNGGAACCCTGATCCAGCCAT 387	Qy         1407 AGTTGATTGCACCAGAAGTGGTTAGCCTAA-CTTAGTGAGGCGATCACCACGGTGTGGT 1465           Db
ò a ò	448 TCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATAAGCACCGGCTAACTCTGTGC 507 424 TAACCTAATACGTTAGTGTTTTGACGTTACCGACAGAATAAGCACCGGCTAACTCTGTGC 483 508 CAGCAGCGGGGGAAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGGCGTAAAGGA 567	.5 Applic No. US RMATIC
9		anoate
ò a ò		CURRENT APPLICATION NUMBER: 0.9/10/252,518  CURRENT FILING DATE: 2002-09-24  PRIOR APPLICATION NUMBER: JP 2000-095004  PRIOR FILING DATE: 2000-03-30  NUMBER OF SEQ ID NOS: 11  SOFTWARE: Microsoft Word
8 % 8	664 CGTAGATATAGGAAGGAACACCAGTGGCGAACGCCACCTGGACTGATACTGACACTG 723 748 AGGCTCGAAAGCGTGGCAAACAGGATATAGATACTGGTAGTCCACGCCGTAAACG 807 778 AGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCTGGTAGTCCACGCCGTAAAACG 807	5 1501 NA M: Pseudomonas :
දී දී දි	* AUGICCARACCIOGOGACCATACAGA I MAILACCIOGIAGICACCOGIANACA  ** ATGICAACTACTACGACCATAGAGACTTAGAGACCAGCAACAACAGA	0%; Score 1098.6; DB 14; Length 1501; 9%; Pred. No. 1.2e-288;
දි දි	868 CCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCACAA 927 	Matches 1287; Conservative 0; Mismatches 202; Indels 9; Gaps 30 GGCGGCAGGCTTAACACATGCAAGTCGAGCGGAAACGATGATAGGTTTAGGCGTC
<u>ک</u> و	928 GCGGTGGAGCAIGTGGTTTAATTCGAIGCAAGAAGAACCTTACCTGGTCTTGACATA 987 	9 GGCGGCAGGCCTAACACATGCAAGTCGAGCGGATGACGGGAGCTTGCTCCTGAATTCA 90 GAGCNGCCGGACGGGTGAGTAATACTTAGGAATCTACCTAGTAGTGGGGGATAGCTCGGG
ò 9	988 CACAGAATCTIGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTGCATGG 1047 	Db 67 GCGGCGGGCGGGTGAGTGACTGCCTGGTTGCCTGGTAGTGGGGACAACGTCTC 123  Qy 150 GAAACTCGAATTAATACCGCATACGT-CTACGGGAGAAAGCAGGGGNTCATTAGACCTTG 208
දු දු	1048 CTGTCGTCAGGTCGTGAGATGTTGGGTTAAGTCCCGCAACGAGGGCAACCCTTGT 1107 	GGCTATTAGATGAGCCTAAGACGCTTACGGCAGGAAAGCTTGCGGCCCTTG CGCTATTAGATGAGCCTAAGTCGGATTAGCTAGGTGGGGGTAAAGGCCTACCATGGCG
දු දු	1108 CCTTAGTTACCAGCAC-TTCGGGTGGGAACTCTAAGGATACTGCCAGTGACAACTGGAG 1166 	
දු දු	1167   GAAGGCGGGGACGACGTCAAGACGTCCTTACGACCAGGGCTACACGCGTGCTAC   1226	329 CT-CTACGGGGGGGGGGGGAATGTGGGCAAACGGGAAACGGGGGCCGGTGGGGGGGG
& 49	27 AATGGTAGGTACAGAGGCAGCTACACAGCGATGTGATGCGAATCTCAAAAAGCCTATCG 1	DD   304 CICCIACGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG
යි යි	87 TAGTCCAGATTGGACTCTGCAACTCCATGAAGTAGGAATGCTAGTAATGCGGA 1 	OY 448 TGGGTTAATACCGGGGACGATGACATTAGCTGCAGAATAAGCACCGGCTAACTCTGTGC 507
දු පු	1347 TCAGAATGCCGGGGGTGAATACGTTCCCGGGCCTTGTACACACCGCCGTCACACCGATGGG 1406 	Oy 508 CAGCAGCCGCGGTAATACAGAGGTGCAAGCGTTAATCGGAATTACTGGGGCGTAAAGCGA 567

LENGTH: 1501

```
TITLE OF INVENTION: POLYHYDROXYALKANOATE CONTAINING UNIT WITH THIENYL STRUCTURE IN THI
TITLE OF INVENTION: CHAIN, PROCESS FOR ITS PRODUCTION, CHARGE CONTROL AGENT, TONER BI
TITLE OF INVENTION: TONER WHICH CONTAIN THIS POLYHYDROXYALKANOATE, AND IMAGE-FORMING
TITLE OF INVENTION: IMAGE-FORMING APPARATUS WHICH MAKE USE OF THE TONER
FILE REFERENCE: CFO163109
CURRENT APPLICATION NUMBER: US/10/105,305
CURRENT FILING DATE: 2002-03-26
PRIOR APPLICATION NUMBER: JP 2001-090026, JP 2001-133551
NUMBER OF SEQ ID NOS: 1
SEQ ID NOS: 1
                                                                                                                                                                                                                                                8 8 8 8
                                                                                                                                                                                               6 B 6
                                                                                                                                                                                                                                                                                                                             원 수 명
                                                                                                                                                                                                                                                                                                                                                                                     8 6 B 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 % 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 8 8
                                                                                                                                                                                                                                                                                                                                  1107
                                                                                                                                                                                                                                                                                                                                                                                                              1226
                                                                                                                                                                                                                                                                                                                                                                                                                                1203
                                                                                                                                                                                                                                                                                                      1083
                                                                                                                                                                                                                                                                                                                                                                                           1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TAGTCCGGATCGCAGTCTGCAACTCGACTGCGTGAAGTCGGAATCGCTAGTAATCGCGAA 1323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTICATIGCACCAGAAGTGGTTAGCCTAA-CTIAGTGAGGGGGATCACCACGGTGTGGT 1465
                                                                                                                                                                                                                                                                                           CACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTGCATGG 1047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        627
                                                                               663
                                                                                                  747
                                                                                                                   723
                                                                                                                                       807
                                                                                                                                                                            867
                                                                                                                                                                                               843
                                                                                                                                                                                                                  927
                                                                                                                                                                                                                          987
                                                                                                                                                         783
                                                                                                                                                                                                                                                                 GCGGTGGAGCATGTGGTTTAATTCGAAGCAACGCGAAGAACCTTACCAGGCCTTGACATC 963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1501
                                                         CAGCAGCCGCGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCGC
                    GCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCTGGGAACTGCATCT
                                 GCGTAGGTGGTTTGTTAAGTTGGATGTGAAAGCCCCGGGCTCAACCTGGGAACTGCATTC
                                                                                               CGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCATCATACTGACACTG
                                                                                                            AGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACG
                                                                                                                                                 ATGTCTACTAGTGGGTCCCTTGAGGACTTAGTGACGCAGCTAACGCAATAAGTAGA
                                                                                                                                                                                                                                                      GCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACATA
                                                                                                                                                                                                                                                                                                                                                                      CCTTAGTTACCAGCAC-TTCGGGTGGGAACTCTAAGGATACTGCCAGTGACAAACTGGAG
                                                                                                                                                                                                                                                                                                                                                                                     CCTTAGTTACCAGCACGCAATGGGGCACTCTAAGGAGACTGCCGGTGACAAACCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCAGAATGCCGCGGTGAATACGTTCCCGGGCCTTGTACACACCGCCCGTCACACCATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Argicaactagccgrigggagccrirgagcrcriragiggcgcgcgcraacgcarraagriga
                                                                                                                                                                                                               CCGCCTGGGGGGGGCGCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCACAA
                                                                                                                                                                                                                                                                                                                                  CTGTCGTCAGCTCGTGAGATGTTGGGTTAAGTCCCGCAACGAGCGCAACCCTTGT
                                                                                                                                                                                                                                                                                                                                             CTGTCGTCAGCTCGTGTCGTGAAGATGTTGGGTTAAGTCCCGTAACGAGCGCAACCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                            GAAGGCGGGACGACGTCAAGTCATCATGGCCCTTACGACCAGGGCTACACGTGCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                        AATGGTAGGTACAGAGGCAGCTACACAGCGATGTGATGCGAATCTCAAAAAGCCTATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TAGTCCAGATTGGAGTCTGCAACTCGACTCCATGAAGTAGGAATCGCTAGTAATCGCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       544
                                                          628
                                                                              604
                                                                                                688
                                                                                                                                     748
                                                                                                                                                        724
                                                                                                                                                                            808
                                                                                                                                                                                             784
                                                                                                                                                                                                                                   844
                                                                                                                                                                                                                                                                         904
                                                                                                                                                                                                                                                                                           988
                                                                                                                                                                                                                                                                                                               964
                                                                                                                                                                                                                                                                                                                                  1048
                                                                                                                                                                                                                                                                                                                                                   1024
                                                                                                                                                                                                                                                                                                                                                                       1108
                                                                                                                                                                                                                                                                                                                                                                                           1084
                                                                                                                                                                                                                                                                                                                                                                                                                               1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1407
                                                                                                                  664
                                                                                                                                                                                                                868
                                                                                                                                                                                                                                                                                                                                                                                                             1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1444
                                                                                                                                                                                                                                                      928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1466
                                  셤
                                                      6 B 6
                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                            ठे वि ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ga &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 원
장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
```

Sequence 1, Application US/10105305 Publication No. US20030096182A1 GENERAL INFORMATION: APPLICANT: CANON KABUSHIKI KAISHA

. . . .

RESULT 11 US-10-105-305-1

```
9
                                                                                                                                                                              149
                                                                                                                                                                                                          123
                                                                                                                                                                                                                                        208
                                                                                                                                                                                                                                                                    183
                                                                                                                                                                                                                                                                                                   268
                                                                                                                                                                                                                                                                                                                               243
                                                                                                                                                                                                                                                                                                                                                             328
                                                                                                                                                                                                                                                                                                                                                                                        303
                                                                                                                                                                                                                                                                                                                                                                                                                       387
                                                                                                                                                                                                                                                                                                                                                                                                                                                   363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   867
                                                                                                                      83
                                                                                                                                                  99
                                                                                                                                                                                                                                                                                                                                                                                ACGATCCGTAACTGGTCTGAGAGGATGATCAGTCACTCGGAACTGAGACACGGTCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCCTACGGGAGGCAGCAGTGGGAAATATTGGACAATGGGCGAAAGCCTGATCCAGCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGCAGCCGCGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCGA
                                                                                                                                    GAGCNGCCGGACGGGTGAGTAATACTTAGGAATCTACCTAGTAGTGGGGGATAGTCGGG
                                                                                                                                                                                               GAAACTCGAATTAATACCGCATACGT-CTACGGGAGAAAGCAGGGGGNTCATTAGACCTTG
                                                                                                                                                                                                                                                            GAAAGGGACGCTAATACCGCATACGTCCTACGGGAGAAAGCAGGGGACCTTCGGGCCTTG
                                                                                                                                                                                                                                                                                                  CGCTATTAGATGAGCCTAAGTCGGATTAGCTAGATGGTGGGGGTAAAGGCCTACCATGGCG
                                                                                                                                                                                                                                                                                                                              cectarcadardadectadercedarraderadriderdaderadectedecadece
                                                                                                                                                                                                                                                                                                                                                             ACGATCTGTAGCTGGTCTGAGAGGATGATCAGCCACACACGGGACTGAGACACGGCCCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           484 CAGCAGCCGCGGTAATACAGAGGTGCAAGCGTTAATCGGAATTACTGGGCCTAAAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCGTAGGTGGTTTGTTAAGTTGGATGTGAAAGCCCCGGGGCTCAACCTGGGAACTGCATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAAACTGTTAGGCTAGAGTAGGTGAGAGGGAAGTAGAATTTCAGGTGTAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAAACTGACAAGCTAGAGTATGGTAGAGGGTGGTGGAATTTCCTGTGTAGCGGTGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCATCATACTGACACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGCTCGAAAGCGTAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              808 ATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCAGCTAACGCAATAAGTAGA
                                                                                                                     GCCGCCAGCCTTAACACATGCAAGTCGAGCGGAAACGATGATAGCTTGCTATTAGGCGTC

    CTACGGGAGGCAGCAGTGGGGAATATTGGACAATGGNGGGAACCCTGATCCAGCCAT

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATAAGCACCGGCTAACTCTGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCTGGGAACTGCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCGCGTGTGTGAAGAGGCCTTTTGGTTGTAAAGCACTTTAAGCAGTGAAGAAGACTCT
                                                            Length 1501
                                                                                       6
                                                                                        Indels
                                                           14;
                                                           Score 1098.6; DB 14
Pred. No. 1.2e-288;
0; Mismatches 202;
                 strain
                 Pseudomonas jessenii 161
                                                         Query Match 72.0%;
Best Local Similarity 85.9%;
Matches 1287; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                       Ė
; TYPE: DNA
; ORGANISM: Ps
US-10-105-305-1
                                                                                                                     30
                                                                                                                                                 σ
                                                                                                                                                                             90
                                                                                                                                                                                                                                        150
                                                                                                                                                                                                                                                                    124
                                                                                                                                                                                                                                                                                                   209
                                                                                                                                                                                                                                                                                                                              184
                                                                                                                                                                                                                                                                                                                                                                                        244
                                                                                                                                                                                                                                                                                                                                                                                                                                                   304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           748
                                                                                                                                                                                                          67
                                                                                                                                                                                                                                                                                                                                                             269
                                                                                                                                                                                                                                                                                                                                                                                                                     329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6 A
```

	Db 784		Best Lo Matche	Best Local Similarity Matches 1287; Conser
	Oy 868 Db 844	CCGCCTGGGGAGTACGCCCCAAGGTTAAAACTCAAATGAATTGACGGGGCCCGCACAA 927	\$ 65 61	30 GGCGGCAGG()
	Qy 928	GCGGTGGAGCATGTGGTTTAATTCGATGCGAGGAGCTTACCTGGTCTTGACATA 987	ò	90 GAGCNGCCG
		GCGGTGGAGCATGTGGTTTAATTCGAAGCACGCGAAGAACCTTACCAGGCCTTGACATC 963	qq	67 Gcágca
	Oy 988 Db 964	CACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTGCATGG 1047	දු පු	150 GAAACTCGAJ      124 GAAAGGGAC
	Oy 1048	CTGTCGTCAGCTCGTGAGATGTTGGGTTAAGTCCCGCAACGAGGGCAACCTTGT 1107	Š	209 CGCTATTAG
	Db 1024		Db	 184 CGCTATCAG
			8 1	
			ga	
	Oy 1167 Db 1144	GAAGGGGGGACGACGTCATCATCATCATTACGACCAGGGCTACACACGTGCTAC 1226	ر م	329 CT-CTACGG          304 CTCCTACGG
	Qy 1227	AATGGTAGGTACAGAGGGCACCACAGCGATGTGACGAATCTCAAAAAGCCTATCG 1286	ò	388 GCCGCGTGT
	Db 1204	AATGGTCGGTACAGGGGTTGCCAAGCCGCGAGGTGGAGCTAATCCCACAAAACCGATCG 1263	qa	364 GCCGCGTGT
	Qy 1287	TAGTCCAGATTGGAGTCTGCAACTCCATGAAGTAGGAATCGCTAGTAATCGCGGA 1346	δλ	448 TCGGTTAAT
	Db 1264	TAGTCCGGATCGCAGTCTGCAACTCGACTGCGTGAATCGCTAGTAATCGCGAA 1323	qq	424 TAACCTAAT
	Oy 1347 Db 1324	TCAGAATGCCGCGGTGAATACGTTCCCGGGCCTTGTACACCGCCCGTCACCACCATGGG 1406	දු පු	508 CAGCAGCCGC          484 CAGCAGCCG
	Qy 1407	AGTTGATTGCACCAGAAGTGGTTAGCCTAA-CTTAGTGAGGGGGGGACGACGGTGTGGGT 1465	ŏ	568 GCGTAGGTG
	Db 1384	1384 AGTGGGTTGCACCAGAAGTAGCTAGCTTCGGGAGGGTGGTTACCACGGTGTGAT 1443	qa	544 GCGTAGGTGC
	Qy 1466	CGATGACTGGGGTGAAGTCGTAACAAGGTAGGGGAACCTGCGGCTGGATCAC 1523	ò	628 GAAACTGTTA
	Db 1444	TCATGAGGGGAAGGGGAAGGTAGGGGAAGGGAAGCTGGGGGAACCTGGGGTGAC 1501	qa	604 AAAACTGACA
	RESULT 12		ò	688 CGTAGAGATO
	US-10-133-404A-1	1 Application 118/1013404A	qq	664 cĠĭAĠATAŢ
	Publication No. US20	Publication No. US20030104302A1	λo	748 AGGCTCGAA
	APPLICANT:	ENERGY INFORMATION: ADDITION: Toutomu Honma	qq	724 AGGTGCGAA
	APPLICANT:	Terbouya land Teryoshi No. US20030104302Aloto	ò	808 ATGTCTACT
	TITLE OF IN	AFFILE OF INVENTION CONSTRUCT and Method for Making It	qa	784 ATGTCAACT
	CURRENT APPLICATION	ک م	δλ	868 CCGCCTGGG
	PRIOR APPLI	PUCKERNI FILING DAIE: 2002-08-13 PUCKENI FILING APPLICATION NUMBER: JP P2001-131694 PRITING APPLICATION AND AL 23	qq	844 CCGCCTGGG
	PRIOR APPLI		ò	928 GCGGTGGAGG
,	NUMBER OF S	NUMBER OF SEQ ID NOS: 13	qq	904 GCGGTGGAGG
	; LENGTH: 1501	01	ò	988 CACAGAATCT
	ORGANISM: Ps US-10-133-404A-1	ORGANISM: Pseudomonas jessenii 161 strain 0-133-404A-1	셤	964 CAATGAACT
	Query Match	72.0%; Score 1098.6; DB 15; Length 1501;	۸۵	1048 CTGTCGTCAC

```
CTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTGCATGG 1047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGTCGTCAGCTCGTGTGAGATGTTGGGTTAAGTCCCGCAACGAGCGCAACCCTTGT 1107
                   9
                                                                                                                                                                                                                                                                                                                                                  303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            963
                                                                                                                SGACGGGTGAGTAATACTTAGGAATCTACCTAGTAGTGGGGGATAGCTCGGG 149
                                                                                                                                          GGACGGGTGAGTAATGCCTAGGAATCTGCCTGGTAGTGGGGGGACAACGTCTC 123
                                                                                                                                                                                  208
                                                                                                                                                                                                    268
                                                                                                                                                                                                                                                                                  243
                                                                                                                                                                                                                                                                                                                 TAGCTGGTCTGAGAGGATGATCAGCCACACCGGGACTGAGACACGGCCCGGA 328
                                                                                                                                                                                                                                                                                                                                                                                  GGAGGCAGCAGTGGGGAATATTGGACAATGGNGGGAACCCTGATCCAGCCAT 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                    507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGGCGTAAAGCGC 543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SECTIGATAAGTCAGATGTGAAATCCCCGGGCTTAACCTGGGAACTGCATCT 627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGCGTGGGTAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACG 807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        radecerredeageerreagererradigeegeageraacearraagrica 843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            agagracidecedaderraaacreaaargaarreacegegegecedaa 903
                                                                               99
                                                                   AATTAATACCGCATACGT-CTACGGGAGAAAGCAGGGGNTCATTAGACCTTG
                                                                                                                                                                                                                                                 GATGAGCCTAAGTCGGATTAGCTAGATGGTGGGGTAAAGGCCTACCATGGCG
                                                                                                                                                                                                                                                                                                                                        TACCCGGGGACGATGACATTAGCTGCAGAATAAGCACCGGCTAACTCTGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAAGCTAGAGTATGGTAGAGGTGGTGGAATTTCCTGTGTAGCGGTGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCATCATACTGACACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INGTCGTTGGGTCCCTTGAGGACTTAGTGACGCGGGCTAACGCAATAAGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SCATGTGGTTTAATTCGAAGCAACGCGAAGAACCTTACCAGGCCTTGACATC
                                                GCTTAACACATGCAAGTCGAGCGGAAACGATGATAGCTTGCTATTAGGCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SCGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TAGGCTAGAGTAGGTGAGAGGAAGTAGAATTTCAGGTGTAGCGGTGAAATG
                 Gaps
                 6
Pred. No. 1.2e-288;
0; Mismatches 202; Indels
y 85.9%;
rvative (
```

	1	484 CAGCAGCGCGCTAATACAGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCGC 543 568 GCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCTGGGAACTGCATCT 627 [	748 AGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACG 807 724 AGGTGCGAAAGCGTGGGGCAAACAGGATTAGATACCTGGTAGTCCACGCCGTAAACG 783 808 ATGTCTACTAGTCGTTGGGTCCCTTGAGGATTAGTGACCCTGGTAGTCCACGCCGTAAACG 783 808 ATGTCTACTAGTCGTTGGGTCCCTTGAGGATTAGTGACGCAGCTAACGCAATAAGTTGA 867 11	
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	8 6 8 6 8 8	6 6 6 6 6 6 6	8 8 8 8
	יין עה ביין	microorga		
1024   CTGTCGTCGTCGTCGTCGTGAGATGTTGGGTTAAGTCCCGTAACGAGCGCAACCCTTGT	CCCGGGCCTTGTACACCGCCCGTCACACCATGGG 138 AGCCTAA-CTTAGTGAGGCGATCACCACGGTGTGGT 146 AGTCTAACCTTCGGGAGGACGGTTTACCACGGTGTGAT 144 AATCTAACCTTCGGGAGGAACCTGCGGTGGATCAC 1523 AAGGTAGCGTAGGGGAACCTGCGGTGGATCAC 1523 CAAGGTAGCCGTAGGGGAACCTGCGGCTGGATCAC 1501	Publication No. US20030180899A1 GENERAL INPORMATION: APPLICANT: Homma. Tsutcmu APPLICANT: Kobayashi, Toyoko APPLICANT: Yano, Tsetsuya APPLICANT: Yano, Tsetsuya APPLICANT: Kobayashi, Shin APPLICANT: Kobayashi, Shin APPLICANT: Kobayashi, Sakae APPLICANT: Kommura, Takashi APPLICANT: Kenmoku, Takashi TITLE OF INVENTION: Process for producing polyhydroxyalkanoate by utilizing FILE REFERENCE: 0350, 015010.1 CURRENT APPLICATION NUMBER: US/10/242,696	6. 56.66.66.66.66.66.66.66.66.66.66.66.66.6	4 4 4 A 12 P P

	1523   QY   388 GCGGGGTGTGTAAAGACGTTTTTGGTTGTAAAGCACTTTAAGCAGTGAAAGACTCT		Microorganisms Db 484  Oy 568  Db 544	Oy 628 GAAACTGTTAGGCTAGAGTAGGTGAGGGAAGTAGAATTTCAGGTGTAGCGGTGAAATG	Qy 688 CGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCATCATACTGACACTG	Qy 748 AGGCTCGAAAGCGTGGGTAGCAAACAGATTAGATACCTGGTAGTCCACGCCGTAAACG	Qy 808 AIGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCAGCTAACGCAATAAGTAGA	Qy 968 CCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCGCACAA	QY         928         GCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACTTTACCTTGATCTTGACATA           D         904         GCGGTGGAGCATGTGGTTTAATTCGAAGCAAGAAGAACCTTACCAGGCCTTGACATC	Oy 988 CACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTTGCATGG	OY 1048 CIGICGTCAGCTCGTCAGATGTTGGGTTAAGTCCCGCAACGAGGGCAACCCTTGT	Oy 1108 89 Db 1084 66		2 123 ANTIGGTAGAGAGACACTACACAGCAATGTGATGCAATCTCAAAAAGCCTATCG 2 208		
	1466 CGATGACTGGGGTGAAGTCGTAACAAGGTAGCCGTAGGGGAACCTGCGGCTGGATCAC	SULT 15 -:10-649-646-1 Sequence 1, Application US/10649646 Publication No. US20040067576A1 GENERAL INFORMATION:	APPLICANT: Canon Inc. TITLE OF INVENTION: Polyhydroxynate, Method For Production Thereof And TITLE OF INVENTION: In The Same FILE REFERENCE: 03500.015001.2 CURRENT APPLICATION NUMBER: US/10/649,646	. 2003-08-28 MMBER: JF 11-371863 999-12-27 JMBER: JF 2000-023078	<pre>prior filing date: 2000-01-31 prior Application Wimber: JP 2000-023080 prior Filing Date: 2000-01-31 prior Application NUMBER: JP 2000-023083</pre>	2000-01-31 UMBER: JP 2000-095011 2000-03-30 UMBER: JP 2000-095012	2000-03-30 TWBER: JP 2000-095013 2000-03-30 TWBER: JP 2000-207089	2000-07-07 DMBER: JP 2000-207091 2000-07-07 UMBER: JP 2000-359789	PALOR FILLNG DATE: 2000-11-27 Remaining Prior Application data removed - See File Wrapper or PALM. WUMBER OF SEQ ID NOS: 1 SOFTWARE: PatentIn version 3.1	; SEQ ID NO 1 : LENGTH 1501 : TYPE: DNA : ORGANISM: Pseudomonas jessenii 161 strain	-10-649-646-1 Query Match	TTAACAATGCAACTCGAACGGAAACGATGATAGCTTGCTATTAC	90 GAGCNGCCGGACGGGTGAGTAATACTTAGGAATCTACCTAGTAGTGGGGGATAGCTCGGG	GCGGCGGGCGGGCGGGCGGGCCCGGGGGGGGGGGG	GCTATTAGATGAGCCTAAGTCGGATTAGCTAGATGGGGGGGTAAAGCTACGGGCCTACCGGGCCTACCGGGCCTACATGCTAGATGGGTGGG	ACGATCTGTAGCTGGGCTGAGAGATGATCAGCGACCGGGACTGAGGACAGGGCCGGA ACGATCTGTAGCTGGGCTGAGAGATGATCAGCGACACCGGACTGAGACACGGCCGGA

1384 AGTGGGTTGCACCAGAAGTAGCTAGTCTAACCTTCGGGAGGACGGTTACCACGGTGTGAT 1443

g ò g

Search completed: April 12, 2005, 09:03:37 Job time : 1140.89 secs

THIS PAGE BLANK (USPTO,

```
April 12, 2005, 05:59:04; Search time 234 Seconds (without alignments) 480.663 Million cell updates/sec
                                                                                                                                                                                                                                                                                                  8780412
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                            Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                 4390206 seqs, 2959870667 residues
                                                                                                                                                   US-09-979-558A-1_COPY_458_476
19
                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                           - nucleic search, using sw model
                                                                                                                                                                                       1 cccggggacgatgacatta 19
                                                                                                                                                                                                                   IDENTITY NUC Gapoxt 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        geneseqn2000s:*
geneseqn2001as:*
geneseqn2001bs:*
geneseqn2002as:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        geneseqn2003cs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     geneseqn2003ds:*
                                                                                                                                                                                                                                                                                                                                                                                                                                          N_Geneseq_16Dec04:*
1: geneseqn1980s:*
2: geneseqn1990s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       genesegn2003as:*genesegn2003bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    geneseqn2004as:
geneseqn2004bs:
                                                                                                                                                                                                                                                                                                                              length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10:
                                                                                                                                                                                                                                                                                                                                sed
                                                                                                                                                     Title:
Perfect score:
                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                                                                                                                                                            Minimum DB
Maximum DB
                                                            OM nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                            Database:
                                                                                                                                                                                      Sequence:
                                                                                                                                                                                                                                                                   Searched:
                                                                                          Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES	Description	Aac87532 Psychroba	1 Aac87531 Psýchroba		30 Adm44620 Insect re	A	.4 Aaf21914 Human bre	72 Aba06572 Human cDN	19 Abv83909 Human pol	Aaz52368	Aa142464	4 Aaa37044 Human PRO	is Aaf54255 DNA encod	Acd68292 Novel hum	4 Ach04394 Human cDN	8 Acd67938 Novel hum		91 Add70591 Human cDN	168 Add39668 Human cDN	.14 Add70114 Human cDN	אחי הבשווא אלקטאל אליי אליי
SUM	Ð	AAC87532	AAC8753	ADM44619	ADM44620	AAC76269	AAF21914	<b>ABA0657</b>	ABV83909	AAZ52368	AAL42464	AAA37044	AAF54255	ACD68292	ACH04394	ACD67938	ADC17945	ADD70591	ADD39668	ADD70114	ADD38235
	DB	4	4	11	11	m	m	4	9	m	9	٣	4	თ	σ	6	10	10	10	10	10
	% Query Match Length DB	19	1526	98	218	584	1882	1926	1926	1987	1987	1989	1989	1989	1989	1989	1989	1989	1989	1989	1989
	% Query Match	100.0	100.0	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3
	Score	19	19	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
	iult No.	-	~	m	4	Ŋ	ø	7	œ	σ	10	11	12	13	14	15	16	17	18	19	20
	Result No.	υ				υ	υ	υ	υ	Ö	υ	U	υ	U	υ	υ	U	υ	U	υ	U

Add39191 Human cDN Add38714 Human cDN Add40145 Human cDN Add40145 Human cDN	Adel9978 Human	Ade21447 Human		Adh99269 Human	Adey644y Human Adf25760 Human	Adf24659 Human		Adh02964 Human	Adh03918 Humar	Adho441 Humai Adho4395 Humai	Adh61396 Humar	Ad194595 Humar	Aah13666 Human	Adi21368 Novel Acn89680 Breat	NTS				,	probe, SEQ ID NO:2.	identification; lation; Psychrobacter; probe; ss.										hic bacterium applicable in species sm as indication in studying and of deep-sea water with sensitivity.		ito a 1526 bp Psychrobacter pacificensis 16S rDNA and an oligonuclectide probe (AAC87532) comprising leter pacificensis 16S rDNA sequence.which are used cowth of psychrophilic bacteria and the circulation sychrobacter pacificensis is an aerobic, Grammon-spore-forming exidase-positive bacterium	nvention
ADD39191 ADD38714 ADD40145	978	447	872 765	269	760	629	395 926	964	918	395	396	595	. 99	368 680	GNMENT			·			on; ircu							LOGY	٠.		from psychrotrophic the microorganism and circulation of		Payer cleot nsis roph:	Tre
DD38	DE19	DE21	DF29 DF55	DH99	DF25	DF24	DF29 DE96	DH02	DHO3	DHO4	DH61	DL94	H136	D121 CN89	ALI					rDNA	ecti ic c							TECHNOLOGY	ane R		chro roor ulat	80	6 bp gonu fice sych er p	apan
444	; a; a		<b>A</b>	4, 1	<b>ፈ</b> ፈ	A .	4 4	Æ	<b>4</b> 4	<b>.</b> 4	Ø	α ,	<b>\$ \$</b>			0	L			165	det ean					7	'n.		Kura		psy mic irc	apanesė	152 oli aci f p	اه <del>ا</del> د
2010	100	12	200	25	122	12	12	12	2 5	175	12	17	J 4.	11		9			ry)	8	ပ္ပံ	iB.			337	34	04	CI &			d d d	Јар	a a r r r r r r r r r r r r r r r r r r	T P
1989	9 6 6	9 6	86 88	86	9 G	98	86	98	800	98	98	800	00	02		. eNC	, AND		ent	ficens	specif erium;	ficens			000WO-JP003	P-0014	J. J.	IND SC	amura K,		originating fr detection of t g its growth an	37pp;		from
	י הי	n m	m m		חת	en i	m m	<u>س</u>	m r	o m	М	m r	າຕ	ოო			3		irst	aci	es-	aci			0.00	950P	000	OF.	tam	58/03	nat: tion gro	10;	relates 87531) sychrobs g the g ater. P	ated
986.				6		9		6	٠,		9	ė,		9.		4 7 1	5		(F	ŭ,	c p	Ωı	A1.		20		20		Kit	515	igi teci		7 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	solat
																1 1	ם ה		5	o o	ği	cter	ďς		000	666	90	AGENCY	A,	-02	der der	Page	(AA(	isc /
4444					4. 4.		4 4							4.4		,	4	5	-200	pa	Α; ph:	bac	7170	20	~	-19	202			001	robe cific coring		entic the the itori	Ξí
100	196	16	16	16,	97	16	16	19	9 7	19	16	16	19	16		T 1 7532/c 8869753		AAC8753	-MAR-	ychrobact	S rDNA; E ychrophil	ychrobact	WO20007	-NON-	-MAY-	-MAY-	-MAR-	(AGEN )	Maruyama	.,		claim 3	The invention sequence (AACE part of the Pe for monitoring of deep-sea we negative.	igina
23 23 24	25	27	58 53	30	32 32	33	ო ი 4 ი	36	37	9 0	40	41	4 4	44		ULT 1 87532,	{	Ā	13	Psy	16S psy	Psy	Ŏ.	30	25	ທ	30	ě	Ma	WPI	DNA   -spe	CI	The second	0 17
υυυι	יטנ	ט ט	υυ	υ	υυ	υ	υυ	υ	U	טט	υ	U	ט ט	טט		RESULT AAC8753	X	A X	台:	E Y	X & &	XX 80	XX	X	XX	XX	Y Y	4	{ L ;	3 E	X	S S	<b>\$</b> \$\$\$\$\$\$	38

```
ö
        pacificensis, Psychrobacter glacincola, and related species, or Psychrobacter pacificensis only via the use of the 165 rDNA sequence. The 165 rDNA sequence and derived oligonucleotide probe are useful for the species-specific detection of Psychrobacter pacificensis to study and monitor its growth as an indicator of the circulation of deep-sea water. The method of the invention is rapid, accurate and has high sensitivity, and removes the need to separate anculture the biological materials. The present sequence represents a specifically claimed Psychrobacter pacificensis 163 rDNA oligonucleotide probe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to a 1526 bp Psychrobacter pacificensis 16S rDNA sequence (AAC87511) and an oligomucleotide probe (AAC87512) comprising part of the Psychrobacter pacificensis 16s rDNA sequence which are used for monitoring the growth of psychrophilic bacteria and the dirculation of deep-sea water. Psychrobacter pacificensis is an aerobic, Gramenegative, non-moutile, non-spore-forming oxidase-positive bacterium originally isolated from the Japan Trench. The invention also relates to a novel method for detecting or specifically identifying Psychrobacter glacincola, and related species, or Psychrobacter glacincola, and related species, or Psychrobacter glacincola, and related species, or Psychrobacter glacincola, and related species. The Psychrobacter pacificensis only via the use of the 16S rDNA sequence. The 16S rDNA sequence and derived oligonucleotide probe are useful for the monitor its growth as an indicator of the circulation of deep-sea water. The method of the invention is rapid, accurate and has high sensitivity,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA probe originating from psychrotrophic bacterium applicable in species -specific detection of the microorganism as indication in studying and monitoring its growth and circulation of deep-sea water with sensitivity.
novel method for detecting or specifically identifying Psychrobacter
                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                      .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16S rDNA; species-specific detection; identification; psychrophilic bacterium; oceanic circulation; Psychrobacter; strain NIBH P2K6; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Psychrobacter pacificensis NIBH P2K6 16S rDNA, SEQ ID NO:1.
                                                                                                                                                                                                                                                                          100.0%; Score 19; DB 4; Length 19; 100.0%; Pred. No. 8.3;
                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                  Sequence 19 BP; 3 A; 6 C; 5 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                    0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (AGEN ) AGENCY OF IND SCI & TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Kurane R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page 30; 37pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BP.
                                                                                                                                                                                                                                                                                                                                                                1 CCCGGGGACGATGACATTA 19
                                                                                                                                                                                                                                                                                                                                                                                                        ccceeeccarcarra 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAC87531 standard; DNA; 1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99JP-00145342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-MAR-2000; 2000WO-JP002045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-MAY-2000; 2000WO-JP003372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Psychrobacter pacificensis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 100.
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Maruyama A, Kitamura K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2001-025158/03.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200071705-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAC87531;
                                                                                                                                                                                                                                                                                                                                                                                                          19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 2
8X8888888888X8
                                                                                                                                                                                                                                                                                                                                                                                                        ద
```

ò

```
ö
                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This invention relates to a novel isolated nucleic acid comprising, or hybridising under low stringent conditions to, any of the 1214 nucleic acid sequences given in the specification, where the expression of the nucleic acid in a plant results in an insect resistant phenotype. The invention may be useful as a plant protectant or for gene therapy. The genes are derived from Arabidopsis thaliana, Nicotiana benthamiana, Oryza sativa and Papaver rhoeas. The isolated nucleic acid and vector are useful for conferring insect resistance and for producing insectresistant plants. The present sequence is that of a DNA sequence of the
and removes the need to separate and culture the biological materials. The present sequence represents the Psychrobacter pacificensis 16S rDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New isolated nucleic acid having expression that results in an insect resistant phenotype, useful for conferring insect resistance and for
                                                                                                                                                                                                                                                                                                                                                                                                 insect resistant phenotype; plant protectant; gene therapy;
Arabidopsis thaliana; Nicotiana benthamiana; Oryza sativa;
Papaver rhoeas; rice; insect resistance; insect-resistant plant; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                   ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 16.4; DB 11; Length 86;
Pred. No. 1.9e+02;
0; Mismatches 1; Indels (
                                                                                  Length 1526;
                                                Sequence 1526 BP; 401 A; 332 C; 467 G; 323 T; 0 U; 3 Other;
                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      invention which may confer insect resistance to plants.
                                                                                                                                                                                                                                                                                                                                                                  Insect resistance associated N benthamiana DNA SeqID26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 86 BP; 24 A; 16 C; 26 G; 20 T; 0 U; 0 Other;
                                                                                                                   ö
                                                                               ; Score 19; DB 4; Pred. No. 12; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; SEQ ID NO 26; 396pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       producing insect-resistant plants.
                                                                                                                                                                     458 CCCGGGGACGATGACATTA 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .,0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Larrinua I;
                                                                                                                                                    1 CCCGGGGACGATGACATTA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCGGGGACGATGACATTA 19
                                                                                                                                                                                                                                                                    ADM44619 standard; DNA; 86 BP
                                                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-AUG-2002; 2002WO-US027882.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31-AUG-2001; 2001US-0316319P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        86.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ccegeaceargacaraa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       94.48;
                                                                                                                                                                                                                                                                                                                                      03-JUN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 94.4'
                                                                                    Query Match
Best Local Similarity 100.
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nicotiana benthamiana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Shukla V, Meade T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (DOWC ) DOW CHEM CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-290133/28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO2003020025-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13-MAR-2003
                                                                                                                                                                                                                                                                                                     ADM44619;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N
                                                                                                                                                                                                                                                                                      셤
   ប្តូប្តីប្ត
                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ਨੇ
                                                                                                                                                      à
```

RESULT

```
antianaemic; gene therapy; cancer; proliferative disorder; hypertension; neurodegenerative disorder; osteoarthritis; graft vs host disease; cardiovascular disease; diabetes mellitus; hypothyroidism; SCID; AIDS; cholesterol ester storage; systemic lupus erythematosus; infection; severe combined immunodeficiency; malaria; autoimmune disorder; asthma; allergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound; bone damage; cartilage damage; antiinflammatory disease; coagulation; thrombosis; contraceptive; sex
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel nucleic acids and peptides derived from open reading frame X,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            useful for treating e.g. cancers, proliferative disorde
neurodegenerative disorders and cardiovascular disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 5; Page 2803; 5507pp; English.
                                                                                                                                                                                                                                                                    31-MAR-1999; 99US-0127607P.

02-APR-1999; 99US-012763FP.

05-APR-1999; 99US-017728P.

30-MAR-2000; 2000US-00540763.
                                                                                                                                                                                                                                       31-MAR-2000; 2000WO-US008621
                                                                                                                                                                                                                                                                                                                                                 (CURA-) CURAGEN CORP.
                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2000-602362/57.
                                                                                                                                                                                                                                                                                                                                                                                                                               P-PSDB; AAB42060
                                                                                                                                                                           WO200058473-A2.
                                                                                                                                                                                                                                                                                                                                                                                Shimkets RA,
                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                         05-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAF21914;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           enhance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAF21914/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 6
    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This invention relates to a novel isolated nucleic acid comprising, or hybridising under low stringent conditions to, any of the 1214 nucleic acid sequences given in the specification, where the expression of the nucleic acid in a plant results in an insect resistant phenotype. The invention may be useful as a plant protectant or for gene therapy. The spenes are derived from Arabidopsis thaliana, Nicotiana benthamiana, Oryza sativa and Papaver rhoeas. The isolated nucleic acid and vector are useful for conferring insect resistance and for producing insect-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; open reading frame; ORFX; detection; cytostatic; hepatotropic; vulnerary; antipsoriatic; antiparkinsonian; nootropic; neuroprotective; anticonvulsant; osteopathic; antiarthritic; immunosupressant; cardiant; immunostimulant; thrombolytic; coagulant; vasotropic; antidiabetic; hypotensive; dermatological; immunosuppressive; antiinflammatory; antiviral; antibacterial; antifungal; antirheumatic; antihyroid;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              resistant plants. The present sequence is that of a DNA sequence of the invention which may confer insect resistance to plants.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          New isolated nucleic acid having expression that results in an insect resistant phenotype, useful for conferring insect resistance and for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                        insect resistant phenotype; plant protectant; gene therapy;
Arabidopsis thaliana; Nicotiana benthamiana; Oryza sativa;
Papaver rhoeas; rice; insect resistance; insect-resistant plant; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 16.4; DB 11; Length 218;
Pred. No. 2.1e+02;
); Mismatches 1; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human ORFX ORF1824 polynucleotide seguence SEQ ID NO:3647.
                                                                                                           Insect resistance associated N benthamiana DNA SeqID27.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 218 BP; 60 A; 28 C; 45 G; 85 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; SEQ ID NO 27; 396pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           resistant phenotype, useful for con
producing insect-resistant plants.
                                                                                                                                                                                                                                                                                                                                                                                                Larrinua I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAC76269 standard; cDNA; 584 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .
O
                ADM44620 standard; DNA; 218 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 CCGGGGACGATGACATTA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11 CCGGGGGACGATGAATTA 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           86.3%;
                                                                                                                                                                                                                                                                                                   30-AUG-2002; 2002WO-US027882
                                                                                                                                                                                                                                                                                                                                31-AUG-2001; 2001US-0316319P
                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17; Conservative
                                                                                                                                                                                                      Nicotiana benthamiana
                                                                                                                                                                                                                                                                                                                                                               (DOWC ) DOW CHEM CO.
                                                                                                                                                                                                                                                                                                                                                                                             Meade T,
                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-290133/28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                     WO2003020025-A2
                                                                              03-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-FEB-2001
                                                                                                                                                                                                                                                                    13-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                             Shukla V,
                                               ADM44620;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAC76269;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAC76269/c
ID AAC763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
   ADM44620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 5
                   ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
```

disorders,

Σ̈́

```
AAC74446 to AAC77606 encode the proteins given in AAB40237 to AAB43397, which represent the human ORFX open reading frames 1 to 3161. The ORFX sequences have activities such as: cytostatic, hepatoropic; valnerary; sequences have activities such as: cytostatic, hepatoropic; valnerary; antipsoriatic; antiparkinsonian; nootropic; neuroprotective; osteopathic; antipsoriatic; tantibation; immunosuppressant; immunostimulant; cardiant; thrombolytic; coagulant; vasotropic; antidiabetic; hypotensive; dermatological; immunosuppressive; antihaflammatory; antibacterial; antiviral; antithromal; antithromal; antithromal; antithromal; continued in antiviral; antithromal; antithromal; to, or preventing or treating pathological conditions associated with an ORFX-associated disorder. The nucleic acids can be used to express ORFX proteins in gene therapy vectors. The proteins and nucleic acids may be used to treat cancers, proliferative disorders, neurodegenerative used to treat cancers, proliferative disorders, cardiovascular disease, diabetes mellitus, hypertension, hypothyroidism, cholesterol ester storage, systemic lupus erythematosus, severe combined immunodeficiency
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (SCID), AIDS, viral, bacterial or fungal infection, malaria, autoimmune disorders, asthma, allergies, aplastic anaemia, burns, wounds, bone and cartilage damage, nocturnal haemoglobinuria, antiinflammatory disease; t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           coagulation; to inhibit thrombosis; and as a contraceptive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     86.3%; Score 16.4; DB 3; Length 584; 94.4%; Pred. No. 2.3e+02; ive 0; Mismatches 1; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 584 BP; 74 A; 232 C; 183 G; 93 T; 0 U; 2 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAF21914 standard; DNA; 1882 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CCCGGGGACGATGACATT 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 94.4%;
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           497 CTCGGGGACGATGACATT
```

```
Human; gene therapy; neural disorder; immune system disorder; muscular disorder; reproductive disorder; gastrointestinal disorder; pulmonary disorder; cardiovascular disorder; renal disorder; proliferative disorder; inflammation; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US - 0225270P.
2000US - 0225447P.
2000US - 0225757P.
2000US - 0225758P.
2000US - 02262759P.
2000US - 0226279P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0214886P.
2000US-0215135P.
2000US-0216647P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0220963P.
2000US-0220964P.
2000US-0224518P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0224519P.
2000US-0225213P.
2000US-0225214P.
                                                                                                                                                                                                                                                                                                  17-JAN-2001; 2001WO-US001349
                                                                                                                                                                                                                                                                                                                                                                                                               2000US-0189874P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0228924P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0229345P.
                   10-JAN-2002 (first entry)
                                                        Human cDNA SEQ ID NO: 238
                                                                                                                                                                                                                          WO200154474-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-AUG-2000;
14-AUG-2000;
14-AUG-2000;
                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                06-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-APR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             06-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4-AUG-2000;
                                                                                                                                                                                                                                                               02-AUG-2001
   Sequences AAF21614 - AAF22031 represent DNA sequences encoding human proteins AAB59128. The DNA and protein sequences are proteins AAB59128. The DNA and protein sequences are sequences AAF22032 - AAF22040 and AAB59129 which are used in the invention are sequences AAF22032 - AAF22040 and AAB59129 which are used in the isolation and characterisation of the DNA and protein sequences of the invention. The breast and ovarian cancer associated DNA, protein, agonist or antagonist sequences exhibit cytostatic; immunosuppressive; noctropic; neuroprotective; antivital; antiallergic; hepatotropic; antidiabetic; antifungal; antiparasitic and cardiant activity. The polynuclectide and protein sequences are used in the diagnosis of cancer, particularly artifungal; antiparasitic and cardiant activity. The polynuclectide and protein sequences, proteins, agonists and agonists may also be used in the diagnosis, prevention and treatment of immune disorders e.g. Addison's disease, allergies, autoimmune thyroiditis, diabetes mellitus, Crohn's disease, multiple sclerosis, rheumatoid arthritis and ulcerative colitis; cardiovascular disorders such as mycocardial ischaemias; wound healing; elections and screbral anoxia and epilepsy; and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New human breast and ovarian cancer associated gene sequences and the polypoperides encoded by these genes, useful in the prevention, treatment and diagnosis of cancer, immune disorders, cardiovascular disorders and neurological diseases.
                                                                    Human; breast cancer; ovarian cancer; cytostatic; immunosuppressive; nootropic; neurpprotective; antiviral; antiallergic; hepatotropic; antidabetic; antiinflammatory; antiulcer; vulnerary; anticonvulsant; antibacterial; antifungal; antiparasitic; cardiant; immune disorder; Addison's disease; allergy; autoimmune haemolytic anaemia; autoimmune thyroiditis; diabetes mellitus; Crohn's disease; multiple sclerosis; rheumatoid arthritis; ulcerative colitis; cardiovascular disorder; wound healing; neurological disease; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                     Human breast and ovarian cancer associated antigen gene SEQ ID 301.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 16.4; DB 3; Length 1882;
Pred. No. 2.5e+02;
0; Mismatches 1; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1882 BP; 383 A; 616 C; 527 G; 350 T; 0 U; 6 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; Page 712-713; 1299pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCGGGGACGATGACATT 529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CCCGGGGACGATGACATT 18
                                                                                                                                                                                                                                                                                                                                                    08-MAR-2000; 2000WO-US005881
                                                                                                                                                                                                                                                                                                                                                                                           99US-0124270P
                                                                                                                                                                                                                                                                                                                                                                                                                              (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         86.3%;
94.4%;
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ruben SM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2000-611515/58.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 infectious diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
nes 17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          P-PSDB; AAB59011.
                                                                                                                                                                                                                                                                            WO200055173-A1.
                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                         12-MAR-1999;
27-MAR-2001
                                                                                                                                                                                                                                                                                                                 21-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Rosen CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
```

2000US-0232398P 2000US-0232399P

14-SEP-2000;

ABA06572 standard; cDNA; 1926 BP

ABA06572;

RESULT 7
ABA06572/c
ID ABA065'
XX
AC ABA065'

Best Loc Matches

g ò

```
2000US - 0236368P

2000US - 0236369P

2000US - 0236370P

2000US - 0237037P

2000US - 0237038P

2000US - 0237038P

2000US - 0237038P

2000US - 0237038P

2000US - 0239337P

2000US - 0241221P

2000US - 024178F

2000US - 024178F
      2000US - 0232401P
2000US - 0233663P
2000US - 0233664P
2000US - 023423P
2000US - 023423P
2000US - 0234997P
2000US - 023499P
2000US - 02349
                                                                                                                                                                                                                                                                                                                                  2000US - 0246477P.
2000US - 0246478P.
2000US - 0246523P.
2000US - 0246524P.
2000US - 0246525P.
                                                                                                                                                                                                                                                                                                                                                                                        2000US-0246527P.
2000US-0246528P.
2000US-0246532P.
                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0246610P.
2000US-0246611P.
2000US-0246613P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0249211P.
2000US-0249212P.
2000US-0249213P.
2000US-0249214P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000US-0249208P.
2000US-0249209P.
2000US-0249210P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-0249244P.
2000US-0249245P.
2000US-0249264P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0249216P.
2000US-0249217P.
                                                                                                                                                                                                                                                                                                                                                                                                                     000US-0246609P
                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0249207P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 000US-0249215P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0249218P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0256719P
                                                                                                                                                      02-0CT-2000;
02-0CT-2000;
02-0CT-2000;
02-0CT-2000;
                                                                                                          29-SEP-2000;
                                                                                                                                                                                                                                                                                                                08-NOV-2000;
                                                                                                                                                                                                                       20-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-NOV-2000;
```

```
The present invention provides human cDNAs, proteins and related genomic DNAs. These can be used in the treatment of neural, immune system, muscular, reproductive, gastrointestinal, pulmonary, cardiovascular, renal and proliferative disorders and inflammation. The present sequence is a cDNA of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human, nootropic, neuroprotective, cytostatic, dermatological, virucide, immunosuppressive, antinflammatory, anti-HIV; antibacterial, vulnerary, antiparkinsonian; antisickling, antianaemic, antiarthritic, cancer, antirheumatic, hepatotropic, cerebroprotective, antinflammatory; antialiargic, antidiabetic, antiulcer, anticonvulsant, antifungal, antiparasitic, cardiant, immune disorder, cardiovascular disorder;
                                                                                                                                                                                                                                               Isolated nucleic acid molecule encoding an inflammation-associated polypeptide is used in preventing, treating or ameliorating a medical condition.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         neurological disease; infection; nephrotropic; gene therapy; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 86.3%; Score 16.4; DB 4; Length 1926; 94.4%; Pred. No. 2.5e+02; ive 0; Mismatches 1; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1926 BP; 395 A; 654 C; 536 G; 341 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                           Claim 1; SEQ ID NO 238; 859pp + Sequence Listing; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human polynucleotide SEQ ID NO 238.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BP.
                                                                                                                                                                     Barash SC, Ruben SM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            crcededacearcacrr 573
06-DEC-2000; 2000US-0251479P.

08-DEC-2000; 2000US-0251868P.

08-DEC-2000; 2000US-0251868P.

08-DEC-2000; 2000US-025198P.

08-DEC-2000; 2000US-025198P.

11-DEC-2000; 2000US-025199P.

05-JAN-2001; 2001US-025497P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCGGGGACGATGACATT 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31-JAN-2000; 2000US-0179065P.

04-FEB-2000; 2000US-0180628P.

28-UJN-2000; 2000US-0214886P.

07-UJL-2000; 2000US-0216647P.

11-UJL-2000; 2000US-021688P.

11-UJL-2000; 2000US-0217487P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABV83909/c
ID ABV83909 standard; cDNA; 1926
                                                                                                                                       (HUMA-) HUMAN GENOME SCI INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-JAN-2001; 2001US-00764853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity 94.4%;
les 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                  WPI; 2001-476161/51.
P-PSDB; ABB10350.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US2002090672-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-DEC-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11-JUL-2002
                                                                                                                                                                     Rosen CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABV83909;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 8
    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
```

ö

such as viral, bacterial, fungal and parasitic

```
The invention relates to novel genes (ABV83682-ABV84101) and proteins (ABP66710-ABP67129) useful for preventing, treating or ameliorating medical conditions e.g. by protein or gene therapy. The genes are isolated from a range of human tissues disclosed in the specification. The nucleic acids, proteins, antibodies and (ant) agonists are useful in the diagnosis, treatment and prevention of: (a) cancer, e.g. breast and evarian cancer and other cancers of the adrenal gland, bone, bone marrow, breast, gastrointestinal tract, liver, lung, or urogenital; (b) immune disorders e.g. Addison's disease, allergies, autoimmune haemolytic anaemia, autoimmune thyroiditis, diabetess mellitus, Crohn's disease, multiple sclerosis, rheumatoid arthritis and ulcerative colitis; (c) cardiovascular disorders such as myocardial ischaemias; (d) wound healing; (e) neurological diseases e.g. cerebral anoxia and epilepsy; and (f)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel polypeptide useful for diagnosis, prognosis, prevention, treatment of immune, hyperproliferative, renal, respiratory, cardiovascular, reproductive, endocrine, gastrointestinal and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; SEQ ID NO 238; 369pp + Sequence Listing; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Barash SC;
                                           14-AUG-2000) 2000US-0224518P.
14-AUG-2000) 2000US-0224518P.
14-AUG-2000) 2000US-022568P.
14-AUG-2000) 2000US-022568P.
14-AUG-2000) 2000US-0225447P.
14-AUG-2000) 2000US-0225447P.
14-AUG-2000) 2000US-0225447P.
14-AUG-2000) 2000US-0225447P.
14-AUG-2000) 2000US-0225447P.
15-AUG-2000) 2000US-022988P.
30-AUG-2000) 2000US-0229848P.
01-SEP-2000) 2000US-0229344P.
01-SEP-2000) 2000US-0229344P.
01-SEP-2000) 2000US-0229344P.
01-SEP-2000) 2000US-0229344P.
01-SEP-2000) 2000US-0229344P.
01-SEP-2000) 2000US-0229344P.
01-SEP-2000) 2000US-0229513P.
01-SEP-2000) 2000US-023937P.
01-SEP-2000) 2000US-023937P.
01-SEP-2000) 2000US-023937P.
01-SEP-2000) 2000US-023937P.
01-SEP-2000) 2000US-023937P.
01-SEP-2000) 2000US-023937P.
01-SEP-2000) 2000US-0239387P.
01-SEP-2000) 2000US-0239387P.
01-SEP-2000) 2000US-0239387P.
01-SEP-2000) 2000US-0239387P.
01-SEP-2000) 2000US-0239388P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0236370P.
2000US-0236802P.
2000US-0237037P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-0237038P.
2000US-0237039P.
2000US-0237040P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0239935P.
2000US-0240960P.
2000US-0241785P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-0241809P.
2000US-0244617P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0251856P.
2000US-0251868P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000US-0251869P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    neurological disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rosen CA, Ruben SM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ROSEN C A.
RUBEN S M.
BARASH S C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2002-681727/73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P-PSDB; ABP66937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       02-0CT-2000; 2
02-0CT-2000; 2
02-0CT-2000; 2
02-0CT-2000; 2
13-0CT-2000; 2
13-0CT-2000; 2
20-0CT-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (ROSE/) F
(RUBE/) F
(BARA/) E
```

```
ö
                                                                                                                                                        ö
infectious diseases such as viral, bacterial, fungal and parasitic infections. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                            NSEQ gene; matrix-remodeling gene; Incyte clone 3948614; cancer; matrix-remodeling disease; cardiomyopathy; arthritis; angiogenesis; diabetic necrosis; atherosclerosis; librosis; ulceration; cytostatic; cardioactive; antiarthritic; angiogenic; antiarteriosclerotic; antiulcer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present sequence is NSEQ gene that is co-expressed with one or more known matrix-remodeling genes in a number of biological samples using an expression vector. This sequence was identified from the Incyte clone 3948614. The gene, protein, and antibody sequences can be used in the diagnosis, and treatment or prevention of a disease associated with its altered expression. The diseases that can be treated are matrix-remodeling diseases, including cancer, cardiomyopathy, arthritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Protein co-expressed with matrix-remodeling proteins, useful in the diagnosis and treatment of cancer, cardiomyopathy, arthritis, angiogenesis, diabetic necrosis, atherosclerosis, fibrosis, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          remodeling diseases, including cancer, cardiomyopathy, arthritis, angiogenesis, diabetic necrosis, atherosclerosis, fibrosis, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
0
                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               / Match 86.3%; Score 16.4; DB 3; Length 1987; Local Similarity 94.4%; Pred. No. 2.5e+02; nes 17; Conservative 0; Mismatches 1; Indels 0;
                                                                                                                   Score 16.4; DB 6; Length 1926;
Pred. No. 2.5e+02;
0; Mismatches 1; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1987 BP; 345 A; 697 C; 579 G; 366 T; 0 U; 0 Other;
                                                                                  Sequence 1926 BP; 395 A; 654 C; 536 G; 341 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                           NSEQ gene-20 associated with matrix remodelling.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; Page 51-52; 55pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Klingler
                                                                                                                                                                                                                                                                                                                    BP
                                                                                                                                                        .;
                                                                                                                                                                                                                              573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CCCGGGGACGATGACATT 18
                                                                                                                                                                                             18
                                                                                                                                                                                                                                                                                                                    AAZ52368 standard; cDNA; 1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-00169289
                                                                                                                       Query Match
Best Local Similarity 94.4%;
Matches 17; Conservative
                                                                                                                                                                                             1 CCCGGGGACGATGACATT
                                                                                                                                                                                                                              crceecaccareacarr
                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (INCY-) INCYTE PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Volkmuth W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2000-317934/27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200021986-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                          24-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-APR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Walker MG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ulceration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ulceration
                                                                                                                                                                                                                               290
                                                                                                                                                                                                                                                                                                                                                          AAZ52368;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                   AAZ52368/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                     RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best
                                                                                                                                                                                                                                                                                                                                                        ð
   SXGGGG
                                                                                                                                                                                                                              셤
                                                                                                                                                                                              ð
```

and

AAL42464/c RESULT 10

임

```
Human, PRO polypeptide; membrane bound protein; receptor; diagnosis; transmembrane; secretion; immunoadhesion; pharmaceutical; screening; ss.
                                          Human PR01293 (UNQ662) cDNA sequence SEQ ID NO:76.
                                                                                                                                                                                                                                      98US-0098716P.
98US-0098749P.
98US-00988749P.
98US-0098873P.
98US-0098873P.
98US-00998743P.
98US-00998743P.
98US-0099596P.
98US-0099596P.
98US-0099754P.
98US-0099763P.
98US-0099763P.
98US-0099763P.
98US-0099816P.
98US-0099816P.
98US-0100884P.
98US-0100884P.
98US-0100884P.
98US-0100884P.
98US-0100884P.
98US-0100884P.
98US-0100884P.
98US-0100884P.
98US-010014P.
98US-010014P.
98US-010171P.
98US-010177P.
98US-010177P.
98US-010177P.
98US-010177P.
98US-010177P.
98US-010177P.
98US-010177P.
98US-010177P.
                                                                                                                                                                                                               99WO-US020111
            08-AUG-2000 (first entry)
                                                                                                                                                   WO200012708-A2.
                                                                                                                     Homo sapiens.
                                                                                                                                                                                                             01-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                   09-SEP-1998
                                                                                                                                                                                 09+MAR-2000
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention comprises human nucleotide sequences which are co-expressed with matrix-remodeling genes. Matrix-remodeling is associated with the construction, destruction and reorganisation of extracellular matrix components. The matrix-remodeling-associated nucleotides of the invention are useful for screening for and purifying ligands that specifically bind to the nucleotides of the invention. The matrix-remodelling-associated nucleotides of the invention are also useful in the diagnosis, prevention, treatment and evaluation of therapies for diseases associated with matrix remodelling e.g. angiogenesis architits, archrosociated with matrix remodelling de.g. angiogenesis archititis, archrosociated cancer, cardiomyopathy, diabetic necrosis, fibrosis and ulceration). The present DNA sequence represents a human matrix-remodeling-associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New isolated polynucleotide coexpressed with matrix-remodeling genes, useful in diagnosis, prognosis, prevention and treatment of diseases associated with matrix-remodeling such as angiogenesis, arthritis and
                                                                                                                                                                                            Human, ds. matrix-remodeling gene, extracellular matrix; gene, matrix-remodeling-associated nucleotide, screening, matrix remodelling-associated disease, angiogenesis, arthritis, atherosclerosis; cancer, cardiomyopathy, diabetic necrosis; fibrosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 16.4; DB 6; Length 1987; Pred. No. 2.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1987 BP; 345 A; 697 C; 579 G; 366 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1; Indels
                                                                                                                                                                 Human matrix-remodeling-associated nucleotide 20.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Walker MG, Volkmuth W, Klingler TM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 2; Page 36-37; 63pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
0
733 CTCGGGGACGATGACATT 716
                                                                        AAL42464 standard; DNA; 1987 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 733 crcececacearcarr 716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCGGGGACGATGACATT 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       86.3%;
94.4%;
                                                                                                                                                                                                                                                                                                                                                                              26-MAR-2001; 2001US-00818143
                                                                                                                                                                                                                                                                                                                                                                                                              98US-00169289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nucleotide of the invention
                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 86.3
Best Local Similarity 94.4
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                         (WALK/) WALKER M G.
(VOLK/) VOLKMUTH W.
(KLIN/) KLINGLER T M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2002-338319/37.
                                                                                                                                                                                                                                                                                                                    US2002019000-A1.
                                                                                                                                                                                                                                                                                                                                                                                                            09-OCT-1998;
                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                   11-JUL-2002
                                                                                                                                                                                                                                                                                                                                                  14-FEB-2002.
                                                                                                                                                                                                                                                         ulceration.
                                                                                                      AAL42464;
```

cancer.

29-SEP-1998

AAA37044 standard; cDNA; 1989 BP.

AAA37044;

AAA37044/c ID AAA370. XX AC AAA370.

RESULT 11

8 g

```
98US-0102487P.
98US-0102570P.
98US-0102684P.
98US-0102684P.
98US-0103687P.
98US-0103687P.
98US-0103144P.
98US-01031328P.
98US-01031328P.
98US-01031328P.
98US-01031328P.
98US-01031328P.
98US-0103633P.
98US-0103633P.
98US-0103633P.
98US-0105602P.
98US-0105602P.
98US-0105602P.
98US-0105603P.
98US-0106033P.
98US-010603P.
98US-010880P.
98US-010880P.
98US-010885P.
98US-010885P.
98US-010885P.
                  01-0CT-1998

01-0CT-1998

06-0CT-1998

07-0CT-1998

07-0CT-1998

07-0CT-1998

07-0CT-1998

07-0CT-1998

08-0CT-1998

08-0CT-1998

08-0CT-1998
                                                                                                                 14-0CT-1998;
20-0CT-1998;
20-0CT-1998;
20-0CT-1998;
                                                                                                                                           21-OCT-1998;
22-OCT-1998;
22-OCT-1998;
26-OCT-1998;
26-OCT-1998;
27-OCT-1998;
                                                                                                                                                                                                          28-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                      18-NOV-1998;
                                                                                                                                                                                                     OCT-1998
                                                                                                                                                                                                                                          -OCT-1998
                                                                                                                                                                                                                                                       29-OCT-1998
30-OCT-1998
                                                                                                                                                                                                                                                                                 33-NOV-1998
                                                                                                                                                                                                                                                                                                                      17-NOV-1998
17-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                         17-NOV-1998
                                                                                                                                                                                                                                                                                       03-NOV-1998
                                                                                                                                                                                                                                                                                                          10-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                            18-NOV-1998
```

```
Watanabe CK,
                            Smith V,
                            Gurney AL,
(GETH ) GENENTECH INC
                            Baker K, Goddard A,
                                                      WPI; 2000-237871/20.
P-PSDB; AAY99362.
```

Wood WI;

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        , Fong S;
Hillan KJ;
, Watanabe CK;
                                                                                          AAA37022 to AAA37144 encode the new isolated human transmembrane, receptor or secreted PRO polypeptides given in AAY99340 to AAY99462. The transmembrane and receptor PRO proteins can be used for screening of potential peptide or small molecule inhibitors of the relevant receptor/ligand interactions. The polypeptides and nucleotide sequences praction then have various industrial applications, including uses as pharmaceutical and diagnostic agents. AAA37145 to AAA37330 represent PCR primers and hybridisation probes used in the isolation of the PRO
New mammalian DNA sequences encoding transmembrane, receptor or secreted PRO polypeptides, useful for screening of potential peptide or small molecule inhibitors of the relevant receptor/ligand interactions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Secreted and transmembrane proteins and nucleic acids designated PRO, useful as hybridization probes, in chromosome and gene mapping and gene
                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                     Query Match 86.3%; Score 16.4; DB 3; Length 1989; Best Local Similarity 94.4%; Pred. No. 2.5e+02; Matches 17; Conservative 0; Mismatches 1; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ferrara N,
Gurney AL, H
                                                                                                                                                                                                                                                          Sequence 1989 BP; 340 A; 693 C; 586 G; 370 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Baker KP, Botstein D, Desnoyers L, Eaton DL, F
Gao W, Goddard A, Godowski PJ, Grimaldi CJ, Gu
Pan J, Paoni NF, Roy MA, Smith V, Stewart TA,
Williams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA encoding protein of the invention #23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Secreted; transmembrane; gene therapy; ss
                                                                                                                                                                                                                         polypeptides from the present invention
                                                               Claim 2; Fig 45; 773pp; English.
                                                                                                                                                                                                                                                                                                                                                                        CTCGGGGACGATGACATT 715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAF54255 standard; DNA; 1989 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 2; Fig 45; 787pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-JUN-1999; 99US-0141037P.
20-JUL-1999; 99US-0144758P.
26-JUL-1999; 99US-014569BP.
01-SEP-1999; 99WO-USO20111.
29-OCT-1999; 99WO-USO28313.
02-DEC-1999; 99WO-USO2851.
16-DEC-1999; 99WO-USO30551.
16-DEC-1999; 99WO-USO30055.
05-JAN-2000; 2000WO-USO00219.
                                                                                                                                                                                                                                                                                                                                                       18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18-FEB-2000; 2000WO-US004342.
                                                                                                                                                                                                                                                                                                                                                         1 CCCGGGGACGATGACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-APR-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2001-071395/08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200078961-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                       732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAF54255;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAF54255
   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
```

```
9805-01006619-9805-01006629-9805-01006629-9805-01006849-9805-01006849-9805-01006849-9805-01006849-9805-01008489-9805-01008489-9805-01008489-9805-01008489-9805-01008489-9805-01008489-9805-01008489-9805-01008489-9805-01008489-9805-01008489-9805-01008489-9805-01008489-9805-01008489-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01014749-9805-01016149-9805-010161449-9805-010161449-9805-010161449-9805-010161449-9805-010161449-9805-010161449-9805-010161449-9805-010161449-9805-010161449-9805-010161449-9805-010161449-9805-010161449-9805-010161449-9805-010161449-9805-010161449-9805-010161449-9805-010161449-9805-010161449-9805-010161449-9805-010161449-9805-010161449-9805-0101614449-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444-9805-010161444
     98US-0100627P
                 16-SEP-1998,
16-SEP-1998,
17-SEP-1998,
17-SEP-1998,
17-SEP-1998,
17-SEP-1998,
17-SEP-1998,
17-SEP-1998,
17-SEP-1998,
17-SEP-1998,
18-SEP-1998,
                                                                                                                                                          18-SEP-1998;
18-SEP-1998;
18-SEP-1998;
18-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1-OCT-1998;
2-OCT-1998;
2-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-OCT-1998;
                                                                                                                                                                                                                     22-SEP-1998
                                                                                                                                                                                                                                 23-SEP-1998
                                                                                                                                                                                                                                                  23-SEP-1998
                                                                                                                                                                                                                                                              23-SEP-1998
                                                                                                                                                                                                                                                                            23-SEP-1998
                                                                                                                                                                                                                                                                                                       23-SEP-1998
                                                                                                                                                                                                                                                                                                                                                 24-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27-0CT-1998;
27-0CT-1998;
                                                                                                                                                                                                                                                                                                                                                              24-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                         29-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                    29-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                   29-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     02-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-OCT-1998
     ö
The present invention relates to secreted and transmembrane proteins. These proteins and the DNA encoding them may be used as hybridization probes, in chromosome and gene mapping and in the generation of antisense RNA and DNA. They may also be used used to generate either transgenic animals or knockout animals which are in turn useful for development and screening of therapeutically useful reagents. The nucleic acids may also be used in gene therapy
                                                                                                                                                                                                                                                                                                                                                                                                               Human; secreted and transmembrane protein; PRO; angiogenesis; endothelial cell proliferation; wound healing; immune response; T-lymphocytes proliferation; neonatal heart hypertrophy; tumour; cardiac insufficiency disorder; calcium flux; inflammation; vascular endothelial growth factor-stimulated proliferation; mammalian kidney mesnagial cell proliferation; Berger disease; nephropathy; Schanlein-Hencor purpura; celiac disease; crohn's disease; dermaritis herpetiformis; diabetes; haemoglobin switch; insulinaemia; pancreatic beta-cell precursor cell differentiation; thalassemias; obesity; auditory hair cell regeneration; hearing loss; bone disorder; cartilage disorder; sports injury; arthritis; gene; ss.
                                                                                                                                                                         Gaps
                                                                                                                                                                         ;
0
                                                                                                                                           Query Match 86.3%; Score 16.4; DB 4; Length 1989; Best Local Similarity 94.4%; Pred. No. 2.5e+02; Matches 17; Conservative 0; Mismatches 1; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                      Novel human secreted and transmembrane protein PRO1293 cDNA.
                                                                                                                Sequence 1989 BP; 340 A; 693 C; 586 G; 370 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                    ACD68292 standard; cDNA; 1989 BP
                                                                                                                                                                                                                              732 CTCGGGGACGATGACATT 715
                                                                                                                                                                                                    1 CCCGGGGACGATGACATT 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-0098723P.
98US-0098749P.
98US-0098803P.
98US-0098843P.
98US-00998843P.
98US-0099596P.
98US-0099596P.
98US-0099542P.
98US-0099542P.
98US-0099642P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0098716P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11-DEC-2001; 2001US-00015869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98US-0099815P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0100390P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0100385P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0100388P
                                                                                                                                                                                                                                                                                                                                                           17-SEP-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US2003073130-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-SEP-1998,
01-SEP-1998,
02-SEP-1998,
02-SEP-1998,
09-SEP-1998,
09-SEP-1998,
09-SEP-1998,
09-SEP-1998,
09-SEP-1998,
09-SEP-1998,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10-SEP-1998,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-SEP-1998
10-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15-SEP-1998
16-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10-SEP-1998
                                                                                                                                                                                                                                                                                                                                ACD68292;
                                                                                                                                                                                                                                                                         RESULT 13
ACD68292/c
                                                                                                                                                                                                                                                                                                                  888888888888
                                                                                                                                                                                                     δ
                                                                                                                                                                                                                              g
```

ö

Gaps

ö

```
PRO1787 that modulate glucose or free fatty acid uptake by skeletal muscle cells, and are useful for treating diabetes, hyper- or hypo-
                                 Query Match 86.3%; Score 16.4; DB 9; Length 1989; Best Local Similarity 94.4%; Pred. No. 2.5e+02; Matches 17; Conservative 0; Mismatches 1; Indels 0
                                                                                                                                                                                                                            Human cDNA encoding secreted/transmembrane protein PRO1293
                                                                                                                                                           ACH04394 standard; cDNA; 1989 BP.
                                                                                             CTCGGGGACGATGACATT 715
                                                                                1 CCCGGGGACGATGACATT 18
                                                                                                                                                                                                      01-OCT-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              02-SEP-1998;
02-SEP-1998;
02-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-SEP-1998
09-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09-SEP-1998
10-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                         06-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .0-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5-SEP-1998
                                                                                                     732
                                                                                                                                                                                ACH04394;
                                                                                                                                               ACH04394/c
                                                                                                                                     RESULT 14
   잼
                                                                                 à
                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-MAR-2001; 2001WO-US006666.
01-JUN-2001; 2001WO-US017800.
20-JUN-2001; 2001WO-US019692.
29-JUN-2001; 2001WO-US021066.
09-JUL-2001; 2001WO-US021735.
04-SEP-2001; 2001US-00946374.
98US-0106464P

98US-010692EP

98US-0106912P

98US-0106913P

98US-0106913P

98US-0106913P

98US-0108775P

98US-0108778P

98US-0108778P

98US-0108778P

98US-010878P

98US-010878P

98US-010878P

98US-010886P

98US-010868P

98US-010868P

98US-010868P
                                                                                                                                                                                                                                                                                                                                                                      99WO-US021194.
99US-0162506P.
99WO-US028313.
99WO-US028551.
                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000WO-US003565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US005004
2000WO-US005841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US023328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US030952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US015264
                                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22-MAY-2000; 2
30-MAY-2000; 2
02-UIN-2000; 2
23-AUG-2000; 2
4-AUG-2000; 2
10-NOV-2000; 2
                                                                                                                                            17 - NOV - 1998;
18 - NOV - 1998;
18 - NOV - 1998;
                                                                                                                                                                                                                          18-NOV-1998;
18-NOV-1998;
18-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                           05-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24-FEB-2000;
02-MAR-2000;
                                                                                                                                                                                                                                                                                                        05-JAN-1999;
                                                                                                                                                                                                                                                                                                                             23-JUN-1999
```

```
Human; ss; gene; secreted protein; transmembrane protein; PRO; vulnerary; cardiant; antidiabetic; ancectic; antiarthritic; angiogenesis; cancer; adrenal cortical capillary; endothelial cell growth; wound healing; stimulated T-lymphocyte proliferation; immune response suppression; neonatal heart hypertrophy; cardiac insufficiency disorder; vascular endothelial growth factor; inflammation; mononuclear cell; eosinophil; diabetes; obesity; or hyper-insulinaemia; hypo-insulinaemia; sports injury; arthritis.
                                                                                                                                                                                                                                     98US-0098716P.
98US-0098723P.
98US-0098750P.
98US-0098831P.
98US-0099536P.
98US-0099536P.
98US-0099538P.
98US-0099538P.
98US-0099538P.
98US-0099538P.
98US-0099612P.
98US-0099763P.
98US-0099763P.
98US-0099763P.
98US-0099763P.
98US-0099763P.
98US-0099815P.
98US-0099815P.
98US-0099815P.
98US-0099815P.
98US-0099816P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0100627P.
98US-0100662P.
98US-0100662P.
98US-0100683P.
98US-0100684P.
98US-0100711P.
                                                                                                                                                                                                                     06-DEC-2001; 2001US-00006856
                                                                                                                                                                                US2003044841-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-SEP-1998
17-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6-SEP-1998
```

, Fong S; Hillan KJ; , Watanabe CK;

Ferrara N, Gurney AL, A, Tumas D,

Baker KP, Botstein D, Desnoyers L, Eaton DL, Fe Gao W, Goddard A, Godowski PJ, Grimaldi JC, Gur Pan J, Paoni NF, Roy MA, Smith V, Stewart TA, Williams PM, Wood WI;

Novel isolated PRO polypeptides e.g. PRO1130, PRO1275, PRO1418, PRO1555,

WPI; 2003-585293/55. P-PSDB; ABO33604.

```
98US-0100930P

98US-0100848P

98US-0101014P

98US-0101017P

98US-0101017P

98US-0101171P

98US-0101171P

98US-0101171P

98US-0101171P

98US-0101171P

98US-0101171P

98US-0101171P

98US-0101171P

98US-0101171P

98US-010171P

98US-010171P

98US-010171P

98US-010171P

98US-010171P

98US-010171P

98US-010171P

98US-010171P

98US-010256P

98US-010311P

98US-0105801P

98US-010603P

98US-010603P
14.5EP-1998, 18.5EP-1998, 18.5EP-1998, 18.5EP-1998, 18.5EP-1998, 23.5EP-1998, 23.5EP-1998, 23.5EP-1998, 23.5EP-1998, 24.5EP-1998, 34.5EP-1998, 34.5E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              08-OCT-1998;
08-OCT-1998;
08-OCT-1998;
14-OCT-1998;
20-OCT-1998;
20-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-OCT-1998;
21-OCT-1998;
22-OCT-1998;
22-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-OCT-1998;
26-OCT-1998;
27-OCT-1998;
27-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27-0CT-1998
28-0CT-1998
28-0CT-1998
28-0CT-1998
28-0CT-1998
28-0CT-1998
28-0CT-1998
29-0CT-1998
30-0CT-1998
30-0CT-1998
30-0CT-1998
30-0CT-1998
30-0CT-1998
30-0CT-1998
30-0CT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 03-NOV-1998;
03-NOV-1998;
10-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-OCT-1998
01-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-OCT-1998
06-OCT-1998
```

```
, Fong S;
Hillan KJ;
, Watanabe CK;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel secreted and transmembrane polypeptides and polynucleotides encoding them useful for treating various cardiac insufficiency disorders, bone and/or cartilage disorders such as sports injuries arthrits.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Baker KP, Botstein D, Desnoyers L, Eaton DL, Ferrara N, Gao W, Goddard A, Godowski PJ, Grimaldi JC, Gurney AL, 1 Pan J, Paoni NF, Roy MA, Smith V, Stewart TA, Tumas D, Williams PM, Wood WI;
98US-0108775P.
98US-0108778P.
98US-010878P.
98US-0108801P.
98US-0108802P.
98US-0108807P.
98US-0108867P.
98US-010885P.
                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US014941.
2000WO-US015264.
2000WO-US023328.
2000WO-US03952.
2000WO-US030873.
                                                                                                                                                                                                                                                 99WO-US021194.
99US-0162506P.
99WO-US028313.
                                                                                                                                                                                                                                                                                                                                                  2000WO-US005841.
2000WO-US006884.
2000WO-US013705.
                                                                                                                                                                                                                                                                                                                      2000WO-US003565
2000WO-US004342
                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001WO-US006520
2001WO-US006666
                                                                                                                                                                                                                                                                                          99WO-US030095
                                                                                                                                                                                                                                                                                                             2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                              2000WO-US014042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001WO-US017800
                                                                                                                                                                                                                                                                              99WO-US028551
                                                                                                                                                                                                                                                                                                                                         2000WO-US005004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001WO-US021735
2001US-00946374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-492259/46.
P-PSDB; ABO44457.
                                                                                                                                                                                                                                                                                                05-JAN-2000;
06-JAN-2000;
11-FEB-2000;
24-FEB-2000;
02-MAR-2000;
17-MAR-2000;
17-MAY-2000;
22-MAY-2000;
02-JUN-2000;
         17 - NOV - 1998
18 - NOV - 1998
18 - NOV - 1998
                                                                                                                                                        18-NOV-1998
22-DEC-1998
30-DEC-1998
30-DEC-1998
16-APR-1999
23-JUN-1999
20-JUL-1999
11-SEP-1999
29-OCT-1999
30-NOV-1999
16-DEC-1999
16-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                            28-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                            23-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-MAR-2001
01-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   29-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20-JUN-200
```

ö

Gaps

ö

Ouery Match

86.3%; Score 16.4; DB 9; Length 1989;
Best Local Similarity 94.4%; Pred. No. 2.5e+02;
Matches 17; Conservative 0; Mismatches 1; Indels 0

and

```
98US-0101738P

98US-0101741P

98US-0101741P

98US-0101916P

98US-0102207P

98US-0102207P

98US-0102207P

98US-0102313P

98US-0102484P

98US-0102584P

98US-0102584P

98US-0102571P

98US-0102571P

98US-0102571P

98US-0103313P

98US-0103313P

98US-0103313P

98US-0103313P

98US-0103313P

98US-0103313P

98US-0103313P

98US-0103314P

98US-0103314P

98US-0103313P

98US-0103314P

98US-0103318P

98US-0106032P

98US-0106033P

98US-0106334P

98US-0106334P

98US-0106334P

98US-0106334P

98US-0106334P

98US-0108807P

98US-0108807P

98US-0108807P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0108848P.
98US-0108849P.
98US-0108850P.
98US-0108851P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-NOV-1998
18-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3-NOV-1998
                                                                                                                                                                                                                            30-SEP-15
01-0CT-19
02-0CT-19
06-0CT-19
06-0CT-19
07-0CT-19
07-0CT-15
07-0CT-15
07-0CT-15
08-0CT-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8-0CT-1
8-0CT-1
                                                                                                                                                                                                                                                              Human, secreted and transmembrane protein, PRO, gene therapy, vaccine, tissue typing, chromosome identification, vaccine, gene, ss.
                                                                                                                                                                                                                             Novel human secreted and transmembrane protein PRO1293 cDNA
                                                                                                      ACD67938/c
ID ACD67938 standard; cDNA; 1989 BP.
                   732 CTCGGGGACGATGACATT 715
1 CCCGGGGACGATGACATT 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                    98US-0098716P.
98US-0098723P.
98US-0098723P.
98US-0098872P.
98US-0098872P.
98US-0098872P.
98US-0099536P.
98US-0099536P.
98US-0099742P.
98US-0099741P.
98US-0099741P.
98US-0099741P.
98US-0099762P.
98US-0099762P.
98US-0099762P.
98US-0100388P.
98US-0100388P.
98US-0100388P.
98US-0100388P.
98US-0100388P.
98US-0100388P.
98US-0100684P.
98US-0100684P.
98US-0100684P.
98US-0100684P.
98US-0100684P.
98US-0100684P.
98US-0100684P.
98US-010064P.
98US-010064P.
98US-0100710P.
98US-010064P.
98US-0100710P.
98US-0100710P.
98US-0100710P.
98US-0100710P.
98US-0100710P.
                                                                                                                                                                                                                                                                                                                                                                                                                     04-SEP-2001; 2001US-00946374
                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                   US2003073129-A1
                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-SEP-1998;
01-SEP-1998;
01-SEP-1998;
01-SEP-1998;
02-SEP-1998;
02-SEP-1998;
09-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            09-SEP-1998;
10-SEP-1998;
10-SEP-1998;
10-SEP-1998;
10-SEP-1998;
10-SEP-1998;
                                                                                                                                                                                           17-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -SEP-1998;
-SEP-1998;
-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-SEP-1998;
15-SEP-1998;
15-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-SEP-1998;
16-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                     17-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             09-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-SEP-1998
17-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17-SEP-1998
17-SEP-1998
                                                                                                                                                         ACD67938;
                                                                                      RESULT 15
                                                                                                                       THE STATE OF THE S
```

98US-0108852P

```
Baker KP, Botstein D, Desnoyers L, Eaton DL, Ferrara N, Fong S; God W, Goddard A, Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ; Pan J, Paoni NF, Roy MA, Smith V, Stewart TA, Tumas D, Watanabe CK; Williams PM, Wood WI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention describes an isolated PRO (secreted and transmembrane) polypeptide (I), having at least 80\$ sequence identity to a sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 2; Fig 45; 561pp; English
                                                                                                                                                                                                                                                                                    26-UUL-1999; 99W0-US020111
15-SEP-1999; 99W0-US020111
18-OCT-1999; 99W0-US020111
18-OCT-1999; 99W0-US0211194;
30-NOV-1999; 99W0-US028313;
02-DEC-1999; 99W0-US02851
16-DEC-1999; 99W0-US028551;
16-DEC-1999; 99W0-US008551;
11-FEB-2000; 2000W0-US000376;
11-FEB-2000; 2000W0-US000376;
11-FEB-2000; 2000W0-US006841;
15-MAR-2000; 2000W0-US006841;
15-MAR-2000; 2000W0-US006841;
17-MAY-2000; 2000W0-US006841;
30-MAY-2000; 2000W0-US006841;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-NOV-2000; 2000WO-US030873.
01-DEC-2000; 2000WO-US030873.
01-MAR-2001; 2001WO-US006520.
01-JUN-2001; 2001WO-US06666.
01-JUN-2001; 2001WO-US017800.
14-JUN-2001; 2001WO-US019692.
20-JUN-2001; 2001WO-US019692.
29-JUN-2001; 2001WO-US021066.
                     980S-0108964P-980S-0108964P-980S-010218517-980S-0114223P-990S-0144291-990S-0144758P-990S-0144758P-990S-0144758P-990S-0144738P-990S-0144738P-990S-0144738P-990S-0144738P-990S-0144738P-990S-0145698P-990S-01453297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-014323297-990S-01422297-990S-01422297-990S-01422297-990S-01422297-990S-01422297-990S-01422297-990S-01422297-990S-01422297-990S-01422297-990S-01422297-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              02-JUN-2000; 2000WO-US015264
23-AUG-2000; 2000WO-US023522
24-AUG-2000; 2000WO-US023328
08-NOV-2000; 2000WO-US030952.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-585292/55.
P-PSDB; ABO33481.
18-NOV-1998;
18-NOV-1998;
18-NOV-1998;
22-DEC-1998;
30-DEC-1998;
05-JAN-1999;
112-APR-1999;
                                                                                                                                                                                                                                         23-JUN-1999;
```

```
Novel isolated PRO polypeptides e.g. PRO1491 and PRO1571, useful in the preparation of a medicament for treating a condition responsive to PRO polypeptide, and as therapeutic agents e.g. vaccines.
```

Query Match

86.3%; Score 16.4; DB 9; Length 1989;
Best Local Similarity 94.4%; Pred. No. 2.5e+02;
Matches 17; Conservative 0; Mismatches 1; Indels 0;

CTCGGGGACGATGACATT 715 1 CCCGGGGACGATGACATT 18

732

염 ò

r r

ö

0; Gaps

Search completed: April 12, 2005, 09:07:38 Job time : 241 secs

THIS PAGE BLANK (USPTO)

```
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-552-322-1
US-09-552-322-1/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 2132
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 15571, A
Sequence 8517, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1, Appli
1, Appli
55, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Appli
Appli
Appli
Appli
Appli
Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1, Appli
Sequence 136302,
                                                                                                                                                                                              April 12, 2005, 08:44:34; Search time 88 Seconds (without alignments) 353.287 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7856,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1
Sequence 5
Sequence 5
Sequence 6
Sequence 6
Sequence 6
Sequence 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence (
Sequence (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Issued Patents NA:*

(cgn2_6/ptodata/1/ina/5A_COMB.seq:*
(cgn2_6/ptodata/1/ina/5B_COMB.seq:*
(cgn2_6/ptodata/1/ina/6A_COMB.seq:*
(cgn2_6/ptodata/1/ina/6B_COMB.seq:*
(cgn2_6/ptodata/1/ina/PcTUS_COMB.seq:*
(cgn2_6/ptodata/1/ina/PcTUS_COMB.seq:*
                         GenCore version 5.1.6
(c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-949-016-136302
US-09-949-016-136302
US-09-187-478-1
US-09-187-478-1
US-09-949-016-15571
US-09-902-540-897
US-09-902-540-897
US-08-419-078-5
US-08-419-078-5
US-08-419-078-6
US-08-419-078-6
US-08-419-078-4
US-08-419-078-4
US-08-419-078-4
US-08-419-078-4
US-08-419-078-4
US-08-419-078-4
US-08-419-078-4
US-09-620-4058-451
US-09-834-759-451
US-09-834-759-451
US-09-834-759-451
US-09-834-759-451
US-09-834-759-451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5-09-590-751A-451
5-09-551-621-451
5-09-248-796A-7856
5-08-419-078-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .09-949-016-136302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-419-078-1
US-08-726-883-1
US-09-023-655-55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1202784 seqs, 818138359 residues
                                                                                                                                                                                                                                                                                                        US-09-979-558A-1_COPY_458_476
19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                            - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                       1 cccggggacgatgacatta 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
2338
2350
2350
51049
636
                                                                                                                                                                                                                                                                                                                                                                                                                                               IDENTITY NUC
                                                     Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \vec{\omega} \circ 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             seq
seq
                                                                                                                                                                                                                                                                                                                                                                                                                                               Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum DB Maximum DB
                                                                                                                                            OM nucleic
                                                                                                                                                                                                                                                                                                                                                                                       Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Database
                                                                                                                                                                                                    Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0000000
```

```
RESULT 2

US-09-949-016-136102/c

JUS-09-949-016-136102, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/241,756

PRIOR PELING DATE: 2000-10-20

PRIOR PLING DATE: 2000-10-30

PRIOR FILING DATE: 2000-10-40

PRIOR FILING DATE: 2000-10-40

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-09-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 15509,
Sequence 15509,
Sequence 14517,
Sequence 14517,
Sequence 14518,
                                                                                                                                                                      Sequence 19, Apr
Sequence 1044, P
Sequence 17325,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Rastelli
TITLE OF INVENTION: METHOD OF CLASSIFYING A THYROID CARCINOMA USING
TITLE OF INVENTION: DIFFERENTIAL GENE EXPRESSION
TITLE OF INVENTION: DIFFERENTIAL GENE EXPRESSION
FILE REFERENCE: 15966-548
CURRENT APPLICATION NUMBER: US/09/552,322
CURRENT APPLICATION NUMBER: 00/130,123
PRIOR FILING DATE: 1999-04-20
PRIOR FILING DATE: 1999-04-20
PRIOR FILING DATE: 2000-03-30
NUMBER OF SEQ ID NOS: 63
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 17226,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                   Sequence 1
Sequence 1
Sequence 1
                                                                                                                                                                                                                                                                                          Sequence Seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 3; Length 2132;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1; Indels
US-09-270-767-14907
US-08-427-097-13
US-08-872-097-13
US-08-878-957-13
US-08-878-957-19
US-09-949-016-15349
US-09-949-016-15349
US-09-949-016-15350
US-09-949-016-15508
US-09-949-016-15508
US-09-949-016-15508
US-09-949-016-15508
US-09-949-016-14516
US-09-949-016-14518
US-09-949-016-14518
US-09-949-016-14518
US-09-949-016-14518
US-09-949-016-14518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 16.4; DB
Pred. No. 78;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; Sequence 1, Application US/09552322; Patent No. 6436642; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ó,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         861 CTCGGGGACGATGACATT 844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCCGGGGACGATGACATT 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   86.3%;
94.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 94.4
Matches 17; Conservative
                                                                                                                                                                                                                                                                                     134987
134987
134987
134987
134987
```

```
TYPE: DNA ORGANISM: Rat
                                                                                                                                                                                                                                                                                                              RESULT 5
US-09-292-036-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
                                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                               Sequence 1, Application US/09582337

Sequence 1, Application US/09582337

Batent No. 6562618

GENERAL INFORMATION:

APPLICANT: Japan Tobacco, Inc.

TITLE OF INVENTION: and Medicinal Uses Thereof

TITLE OF INVENTION: and Medicinal Uses Thereof

FILE REFERENCE: J1-009PCT

CURRENT APPLICATION NUMBER: US/09/582,337

CURRENT FILING DATE: 1200-06-23

PRIOR FILING DATE: 1299-12-25

PRIOR FILING DATE: 1999-12-15

PRIOR FILING DATE: 1999-12-15

PRIOR FILING DATE: 1999-12-15

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 1

LENGTHAN 2338
                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1, Application US/09187478;
Patent No. 6348329
GENERAL INFORMATION:
APPLICANT: Schmidt, Brian F.
APPLICANT: Schmidt, Brian F.
TITLE OF INVENTION: Connective Tissue Growth (CTGF) And Methods Of Use;
FILE REPRENCE: 08766/004001
CURRENT PILING DATE: 1998-11-06
NUMBER OF SEQ ID NOS: 2
SOFTWARE: PatentIN Ver. 2.0
SEQ ID NO 1;
LENGTH: 2350
                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match

81.1%; Score 15.4; DB 4; Length 2338;
Best Local Similarity 94.1%; Pred. No. 2.5e+02;
Matches 16; Conservative 0; Mismatches 1; Indels 0
                                                                                                                                                          Length 601;
                                                                                                                                                                                               1; Indels
                                                                                                                                                        81.1%; Score 15.4; DB 4;
94.1%; Pred. No. 2.2e+02;
cive 0; Mismatches 1;
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 136302
LENGTH: 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1194 CCCGGGGACAATGACAT 1210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CCCGGGGACGATGACAT 17
                                                                                                                                                                                                                                    1 CCCGGGGACGATGACAT 17
                                                                                                                                                                                                                                                                       77 cccececacarcar 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/L.

LOCATION: (213/...

NAME/KEY: 3'UTR

LOCATION: (1257)...(2338)

NAME/KEY: POLYA signal
                                                                                                                                                    Query Match
Best Local Similarity 94.1
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (212)
                                                                                 ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-136302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: 5'UTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA ORGANISM: Rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; LOCATION: (;
US-09-582-337-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 4
US-09-187-478-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY
                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
```

```
Sequence 15571, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
FILE REFRENCE: CLO01307
CURRENT APPLICATION NUMBER: 0509/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR FILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR PILING DATE: 2000-10-03
PRIOR PILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
SPRIOR FILING DATE: 2000-10-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1, Application US/09292036

Sequence 1, Application US/09292036

Patent No. 6358741

GENERAL INFORMATION:

APPLICANT: FIBROGEN, INC

APPLICANT: SCHMIDT, Brian

APPLICANT: ACLEN, Margaret

APPLICANT: CARMICHAEL, David

TITLE OF INVENTION: CONNECTIVE TISSUE GROWTH FACTOR (CTGF) AND METHODS OF USE

FILE REFRENCE: FIBRO1100-1

CURRENT APPLICATION NUMBER: US 09/292,036

CURRENT APPLICATION NUMBER: US 09/292,036

CURRENT APPLICATION NUMBER: US 09/292,036

PRIOR PILING DATE: 1999-04-14

PRIOR FILING DATE: 1999-11-06

NUMBER OF SEQ ID NOS: 18

SOFTWARE: PatentIn version 3.0

SEQ ID NO 1

LEASTH: 2350

LEASTH: 2350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                     ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                Query Match 81.1%; Score 15.4; DB 3; Length 2350; Best Local Similarity 94.1%; Pred. No. 2.5e+02; Matches 16; Conservative 0; Mismatches 1; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 2350;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  81.1%; Score 15.4; DB 3;
94.1%; Pred. No. 2.5e+02;
tive 0; Mismatches 1;
TYPE: DNA ORGANISM: No. 6348329mal Rate Kidney Fibroblast
                                                                                                                                                                                                                                                                                                                                                                                                                1193 CCCGGGGACAÁTGACAÍ 1209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1193 ¢¢¢¢¢¢¢ákantakán 1209
                                                                                                                                                                                                                                                                                                                                                    1 CCCGGGGACGATGACAT 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CCCGGGGACGATGACAT 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 94.1
Matches 16; Conservative
                                                           ; FEATURE:
; NAME/KEY: CDS
; LOCATION: (212)..(1252)
US-09-187-478-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; NAME/KEY: CDS
; LOCATION: (212)..(1252)
US-09-292-036-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-949-016-15571
```

ઠે 셤

```
4043 CCCGGGGACGATGAC 4057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 10
US-08-878-957-12/c
                                                                                                                                                                                                                                                                                                                                                                                            ZIP: 80303
                                                                                                                                                                                                                                                                                                                                                                          COUNTRY:
                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 897, Application US/09902540

Sequence 897, Application US/09902540

Barent No. 6833447

GENERAL INFORMATION:
APPLICANT: Goldman, Barry S.
APPLICANT: Slater, Steven C.
APPLICANT: Wiegand, Roger C.
TITLE OF INVENTION: Myzococcus xanthus Genome Sequences and Uses Thereof
FILE REFERENCE: 38-10(15449)B

CURRENT FILING DATE: 2001-07-10

PRIOR APPLICATION NUMBER: 60/217,883

PRIOR FILING DATE: 2000-07-10

PRIOR FILING DATE: 2000-07-10
                                                                                                                                                                                                                                                                                                                             Sequence 8517, Application US/09902540

Sequence 8517, Application US/09902540

Patent No. 683347

GENERAL INFORMATION:
APPLICANT: Goldman, Barry S.
APPLICANT: Glodman, Barry S.
APPLICANT: Slater, Steven C.
APPLICANT: Wiegand, Roger C.
TITLE OF INVENTION: Wyxococcus xanthus Genome Sequences and Uses Thereof
FILE REFERENCE: 38-10(15849)B

CURRENT APPLICATION NUMBER: US/09/902,540

CURRENT FILING DATE: 2001-07-10

PRIOR PLICATION NUMBER: 60/217,883

PRIOR FILING DATE: 2000-07-10

MUMBER OF SEQ ID NOS: 16825

SEQ ID NO 8517

LENGTH: 636
                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                          .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .;
0
                                                                                                                    Score 15.4; DB 4; Length 51049;
Pred. No. 3.3e+02;
0; Mismatches 1; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                78.9%; Score 15; DB 4; Length 6855; 100.0%; Pred. No. 4.48+02; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 636;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  78.9%; Score 15; DB 4; L. 100.0%; Pred. No. 3.6e+02; tive 0; Mismatches 0;
                                                                                                                                                                                                                       13209 CCCGGGGACAATGACAT 13225
                                                                                                                                                                                                 1 CCCGGGGACGATGACAT 17
                                                                                                                 ch 81.1%;
|| Similarity 94.1%;
| 16; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        265 CCCGGGGACGATGAC 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; TYPE: DNA; ORGANISM: Myxococcus xanthus US-09-902-540-8517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CCCGGGGACGATGAC 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: DNA
CRGANISM: Myxococcus xanthus
US-09-902-540-897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 100.0
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                    Query Match
Best Local Similarity
Matches 16; Conserv
                                      : TYPE: DNA
; ORGANISM: Human
US-09-949-016-15571
                                                                                                                                                                                                                                                                                            RESULT 7
US-09-902-540-8517
; SEQ ID NO 15571
                      LENGTH: 51049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-902-540-897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO 897
LENGTH: 6855
```

ò

1 CCCGGGGACGATGAC 15

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          77.9%; Score 14.8; DB 1; Length 99; 88.9%; Pred. No. 3.8e+02; ive 0; Mismatches 2; Indels
RESULT 9
US-08-427-097-12/C
Sequence 12, Application US/08427097
Sequence 12, Application US/08427097
GENERAL INFORMATION:
APPLICANT: Meagher, Richard B.
APPLICANT: Meagher, Richard B.
APPLICANT: Member O.
TITLE OF INVENTION: Metal Resistance Sequences and TITLE OF INVENTION: Transgenic Plants
NUMBER OF SEQUENCES: 30
CORRESPONDENCES: 30
CORRESPONDENCE ADDRESS:
ADDRESSEE: Greenlee, Winner and Sullivan, P.C.
STREET: 5370 Manhattan Circle, Suite 201
CITY: Boulder
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 12, Application US/08878957
Patent No. 5965796
GENERAL INFORMATION:
APPLICANT: Meagher, Richard B.
APPLICANT: Summers, Anne O.
APPLICANT: Summers, Anne O.
APPLICANT: Rugh, Clayton L.
TITLE OF INVENTION: Metal Resistance Sequences and
TITLE OF INVENTION: Transgenic Plants
                                                                                                                                                                    Anne O.
Metal Resistance Sequences and
Transgenic Plants
                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTION DATA:
CURRENT APPLICATION DATA:
RILING DATE: 21-APR-1995
CLASSIFICATION: 800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    E: Greenlee, Winner and Sullivan, P.C. 5370 Manhattan Circle, Suite 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                desc = "Oligonúcleotide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: other nucleic acid
DESCRIPTION: /desc = "Oligonuclo"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY AGENT INFORMATION:
NAME: Ferber, Donna M.
REGISTRATION NUMBER: 43,878
REFERENCE/DOCKET NUMBER: 40
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 CCGGGGACGATGACATTA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 96 ccesescrcearcacra 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE: (303) 499-8080
TELEPAX: (303) 499-8089
INFORMATION FOR SEQ ID NO: 12: SEQUENCE CHARACTERISTICS: LENGTH: 99 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 77.9
Best Local Similarity 88.9
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
ADDRESSEE: Greenlee,
STREET: 5370 Manhatta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: nucleic acid
```

ö

Gaps

```
.;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   77.9%; Score 14.8; DB 1; Length 170; 88.9%; Pred. No. 4e+02; tive 0; Mismatches 2; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 14.8; DB 1; Length 170;
Pred. No. 4e+02;
0; Mismatches 2; Indel8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: USAN
ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/419,078
FILING DATE:
CIASSIFICATION: 435
GIASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
REGISTRATION NUMBER: 33954
REGISTRATION NUMBER: PF0030 US
REGISTRATION NUMBER: PF035
TELEFAX: 415-855-055
TELEFAX: 415-855-055
TELEFAX: 415-855-055
TELEFAX: 170 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 6, Application US/08419078
Facent No. 5587306
GENERAL INFORMATION:
APPLICANT: HAWKINS, PHILLIP R.
TITLE OF INVENTION: PHOSPHOLIPASE C HOMOLOG
NUMBER OF SEQUENCES: 13
CORRESPONDENCE ADDRESSE:
ADDRESSES: INCYTE PHARMACEUTICALS, INC.
STREET: 3330 HILLVIEW AVENUE
CITY: PALO ALTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              117 CCCGTGGAGGATGACATT 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CCCGGGGACGATGACATT 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CCCGGGGACGATGACATT 18
TELECOMMUNICATION INFORMATION
                    TELEPHONE: 415-855-0555
TELEPAX: 415-855-0572
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 170 base pairs
TYPE: nucleic acid
STRANBDENES: single
TOPOLOGY: linear
MOLECULE TYPE: cDNA
IMMEDIATE SOURCE:
LIBRARY: CORNEAL
CLONE: 046611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 88.9%;
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 77.99
Best Local Similarity 88.99
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          054216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE: CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LIBRARY:
                                                                                                                                                                                                                                                                                                                                                                                                 ;
US-08-419-078-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; CLONE: (
US-08-419-078-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JS-08-419-078-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          77.9%; Score 14.8; DB 2; Length 99; 88.9%; Pred. No. 3.8e+02; ive 0; Mismatches 2; Indels
                                                                                  COMPUTER FRADABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/878,957
FILING DATE: 19-JUN-1997
CLASSIFICATION: 800
PRIOR APPLICATION BATA:
APPLICATION NUMBER: US 08/427,097
FILING DATE: 21-APR-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/419,078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 5, Application US/08419078
Patent No. 5587306
GENERAL INFORMATION:
APPLICANT: HAMKINS, PHILLIP R.
APPLICANT: SELIHAMER, JEFFREY J.
TITLE OF INVENTION: PHOSPHOLIPASE C HOMOLOG
NUMBER OF SEQUENCES: 13
CORRESPONDENCE ADDRESS:
ADDRESSEE: INCYTE PHARMACEUTICALS, INC.
STREET: 3330 HILLVIEW AVENUE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY: linear
MOLECULE TYPE: other nucleic acid
DESCRIPTION: /desc = "Oligonucleotide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
NAME: LUTHER, BARBARA J.
REGISTRATION INMBER: 33954
REPERRNCE/DOCKET NUMBER: PF0030 US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Ferber, Donna M.
REGISTRATION NUMBER: 33,878
REFRERNCE/DOCKET NUMBER: 40-9.
TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 499-8089
TELEFAX: (303) 499-8089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 CCGGGGACGATGACATTA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 88.94
The second of the 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 99 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION: 435
Colorado
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CITY: PAI
STATE: CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-878-957-12
STATE: C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-419-078-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
```

硆

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 14.8; DB 1; Length 170;
Pred. No. 4e+02;
0; Mismatches 2; Indels
                                         COMPUTER READABLE FORM:

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US 08/126,883

FILING DATE: 04-OCT-1996

CLASSIPICATION DATA:

APPLICATION NUMBER: US 08/19,078

FILING DATE: 10-APR-1995

ATTORNEY AGENT INFORMATION:

NAME: LUTHER, BARBARA J.

REFERENCE/DOCKET NUMBER: 9F0030 US

TELECOMMUNICATION INFORMATION:

TELECOMMUNICATION INFORMATION:

TELECOMMUNICATION INFORMATION:

TELECOMMUNICATION INFORMATION:

TELECOMMUNICATION INFORMATION:

TELECOMMUNICATION OF 6:

SEQUENCE CHARACTERISTICS:

LENGTH: 170 base pairs

TYPE: nucleic acid

TYPE: TOPICATION INFORMATION:

TYPE: TOPICATION INFORMATION:

TELEPAT: 415-855-0572

INFORMATION FOR SEQ ID NO: 6:

SEQUENCE CHARACTERISTICS:

LENGTH: 170 base pairs

TYPE: TOPICATION INFORMATION:

TYPE: TOPICATION INFORMATION:

TELEPAT: ALS-855-0572

INFORMATION FOR SEQ ID NO: 6:

SEQUENCE CHARACTERISTICS:

LENGTH: 170 base pairs

TYPE: TOPICATION INFORMATION:

TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 4, Application US/08419078
Fatent No. 5587306
GENERAL INFORMATION:
APPLICANT: HAWNIN:
APPLICANT: BELLHAMER, JEFFREY J.
ITLE OF INVENTION: PHOSPHOLIPASE C HOMOLOG;
NUMBER OF SEQUENCES: 13
CORRESPONDENCE ADDRESS:
ADDRESSEE: INCYTE PHARMACEUTICALS, INC.
STREET: 3330 HILLVIEW AVENUE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PF0030 US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ~117 cccerceacearcacarr 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
NAME: LUTHER, BARBARA J.
REGISTRATION NUMBER: 33954
REFERENCE/DOCKET NUMBER: 91
TELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 77.9%;
Best Local Similarity '88.9%;
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LIBRARY: Fibroblast
CLONE: 054216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'FILING DATE:
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: linear
MOLECULE TYPE: cDNA
IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: PALO ALTO STATE: CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   USA
                                   USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-726-883-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-419-078-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          77.9%; Score 14.8; DB 1; Length 170; 88.9%; Pred. No. 4e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-014.43
US-08-126-893-5
Sequence 5, Application US/08726883
Sequence 5, Application US/08726883
Sequence 5, Application US/08726883
Sequence 6, Application US/08726883
SELEMAN HAWKINS, PHILLIP R.
APPLICANT: SEILHAMER, DEFFREY J.
TITLE OF INVENTION: PHOSPHOLIPASE C HOMOLOG
NUMBER OF SEQUENCES: 13
CORRESPONDENCE ADDRESS:
ADDRESSEE: INCYTE PHARMACEUTICALS, INC.
STREET: 3330 HILLVIEW AVENUE
CITY: PALO ALTO
STATE: CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-726-883-6
; Sequence 6, Application US/08726883
; Patent No. 5676946
; GENERAL INFORMATION:
    APPLICANT: HAWKINS, PHILLIP R.
    APPLICANT: SEILHAMER, JEFFREY J.
    TITLE OF INVENTION: PHOSPHOLIPASE C HOMOLOG
    NUMBER OF SEQUENCES: 13
    CORRESPONDENCE ADDRESS:
    ADDRESSEE: INCYTE PHARMACEUTICALS, INC.
    STREET: 333 OHILLVIEW AVENUE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA.

APPLICATION DATA.

APPLICATION NUMBER: US 08/419,078

FILING DATE: UO-APPL-1995

ATTORNEY-AGENT INFORMATION:

NAME: LUTHER, BARBARA J.

REGISTRATION NUMBER: 33954

REGISTRATION NUMBER: PF0030 US

TELECHONE: 415-85-0552

INFORMATION FOR SEQ ID NO: 5:

SEQUENCE CHARACTERISTICS:

LENGTH: 170 base pairs
                                117 CCCGTGGAGGATGACATT 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   117 CCCGTGGAGGATGACATT 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CCCGGGGACGATGACATT 18
LENGTH: 170 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LIBRARY: Corneal Stroma CLONE: 046611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 16; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PALO ALTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-726-883-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 14
```

g

ö

```
| TELEPHONE: 415-855-0555 |
| TELEFAX: 415-855-0572 |
| INFORMATION FOR EGG ID NO: 4: |
| SEQUENCE CHARACTERISTICS: |
| LENGTH: 300 base pairs |
| TYPE: mucleic acid |
| TYPE: mucleic
```

Search completed: April 12, 2005, 10:01:56 Job time : 90 secs

239 cccerceaecareacarr 256

g

Sequence Sequence Sequence Sequence Sequence Sequence

Sequence Sequence Sequence Sequence Sequence Sequence

Sequence Seq

Minimum DB Maximum DB

Database

Searched:

Sequence Sequence Sequence Sequence

Sequence Sequence Sequence

US-10-015-393A-76
US-10-012-869A-76
US-10-012-869A-76
US-10-106-117A-76
US-10-006-117A-76
US-10-013-913A-76
US-10-013-913A-76
US-10-013-913A-76
US-10-011-674A-76
US-10-011-674A-76
US-10-011-674A-76
US-10-011-63A-76
US-10-011-63A-76
US-10-011-63A-76
US-10-011-63A-76
US-10-011-63A-76
US-10-015-391A-76
US-10-015-391A-76
US-10-015-391A-76
US-10-015-391A-76
US-10-015-392A-76
US-10-015-392A-76
US-10-015-392A-76
US-10-015-392A-76
US-10-015-923A-76
US-10-015-923A-76
US-10-015-923A-76
US-10-015-923A-76
US-10-015-923A-76
US-10-015-923A-76
US-10-015-923A-76
US-10-011-909A-76
US-10-011-909A-76
US-10-011-909A-76
US-10-011-909A-76
US-10-011-909A-76
US-10-011-909A-76
US-10-011-909A-76

OM nucleic

Run on:

Sequence:

```
APPLICANT: KATO, Seishi
APPLICANT: KATO, Seishi
APPLICANT: KATO, Seishi
TITLE OF INVENTION: THESE PROTEINS HAVING HYDROPHOBIC DOMAINS AND DNAB ENCODING
TITLE OF INVENTION: THESE PROTEINS
FILE REFERENCE: 01997.015100.US
CURRENT APPLICATION NUMBER: US/10/169,395
CURRENT FILING DATE: 2002-11-29
PRIOR APPLICATION NUMBER: JP 2000-588
PRIOR APPLICATION NUMBER: JP 2000-2299
PRIOR PILING DATE: 2000-01-06
PRIOR PILING DATE: 2000-01-11
PRIOR PILING DATE: 2000-01-11
PRIOR PILING DATE: 2000-03-03
PRIOR APPLICATION NUMBER: JP 2000-2886
PRIOR FILING DATE: 2000-03-03
PRIOR APPLICATION NUMBER: JP 2000-58367
PRIOR APPLICATION NUMBER: JP 2000-58367
PRIOR APPLICATION NUMBER: PCT/JP00/09359
PRIOR APPLICATION NUMBER: PCT/JP00/09359
PRIOR APPLICATION NUMBER: PCT/JP00/09369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-169-395-18/c
; Sequence 18, Application US/10169395
; Publication No. US20040034192A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   86.3%;
94.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 86.3
Best Local Similarity 94.4
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 1329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-169-395-18
Sequence 18, Appl
Sequence 301, App
Sequence 301, App
Sequence 238, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sequence 301, At Sequence 201, It Sequence 20, Apr Sequence 76, Apr
                                                                                                                                            April 12, 2005, 09:31:24 ; Search time 289 Seconds (without alignments) 398.409 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            is the number of results predicted by chance to have a
ster than or equal to the score of the result being printed,
rived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Published Applications NA:*

1: /cgn2_6/ptodata/1/pubpna/DCT_PUBCOMB.seq:*
2: /cgn2_6/ptodata/1/pubpna/PCT_NEW_PUB.seq:*
3: /cgn2_6/ptodata/1/pubpna/DCT_NEW_PUB.seq:*
4: /cgn2_6/ptodata/1/pubpna/USO6_NEW_PUB.seq:*
5: /cgn2_6/ptodata/1/pubpna/DCT_NEW_PUB.seq:*
6: /cgn2_6/ptodata/1/pubpna/DCT_NEW_PUB.seq:*
7/cgn2_6/ptodata/1/pubpna/DSO6_NEW_PUB.seq:*
8: /cgn2_6/ptodata/1/pubpna/USO6_NEW_PUB.seq:*
9: /cgn2_6/ptodata/1/pubpna/USO6_PUBCOMB.seq:*
11: /cgn2_6/ptodata/1/pubpna/USO6_PUBCOMB.seq:*
11: /cgn2_6/ptodata/1/pubpna/USO9_PUBCOMB.seq:*
11: /cgn2_6/ptodata/1/pubpna/USO9_PUBCOMB.seq:*
11: /cgn2_6/ptodata/1/pubpna/USO9_PUBCOMB.seq:*
12: /cgn2_6/ptodata/1/pubpna/USO9_PUBCOMB.seq:*
13: /cgn2_6/ptodata/1/pubpna/USO9_PUBCOMB.seq:*
14: /cgn2_6/ptodata/1/pubpna/USO08_PUBCOMB.seq:*
15: /cgn2_6/ptodata/1/pubpna/USO08_PUBCOMB.seq:*
16: /cgn2_6/ptodata/1/pubpna/USO08_PUBCOMB.seq:*
17: /cgn2_6/ptodata/1/pubpna/USO08_PUBCOMB.seq:*
18: /cgn2_6/ptodata/1/pubpna/USO08_PUBCOMB.seq:*
19: /cgn2_6/ptodata/1/pubpna/USO08_PUBCOMB.seq:*
10: /cgn2_6/ptodata/1/pubpna/USO08_PUBCOMB.seq:*
11: /cgn2_6/ptodata/1/pubpna/USO08_PUBCOMB.seq:*
12: /cgn2_6/ptodata/1/pubpna/USO08_PUBCOMB.seq:*
13: /cgn2_6/ptodata/1/pubpna/USO08_PUBCOMB.seq:*
14: /cgn2_6/ptodata/1/pubpna/USO08_PUBCOMB.seq:*
15: /cgn2_6/ptodata/1/pubpna/USO08_PUBCOMB.seq:*
16: /cgn2_6/ptodata/1/pubpna/USO08_PUBCOMB.seq:*
17: /cgn2_6/ptodata/1/pubpna/USO08_PUBCOMB.seq:*
18: /cgn2_6/ptodata/1/pubpna/USO08_PUBCOMB.seq:*
19: /cgn2_6/ptodata/1/pubpna/USO08_PUBCOMB.seq:*
19: /cgn2_6/ptodata/1/pubpna/USO08_PUBCOMB.seq:*
10: /cgn2_6/ptodata/1/pubpna/USO08_PUBCOMB.seq:*
11: /cgn2_6/ptodata/1/pubpna/USO08_PUBCOMB.seq:*
12: /cgn2_6/ptodata/1/pubpna/USO08_PUBCOMB.seq:*
                  GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-925-298-301

US-09-764-833-238

US-09-818-143-20

US-09-946-374-76

US-09-946-374-76

US-10-006-856A-76

US-10-006-818A-76

US-10-006-485A-76

US-10-013-907A-76
                                                                                                                                                                                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-169-395-18
                                                                                                                                                                                                                                                                                                                                                                                                  5615251 seqs, 3030001701 residues
                                                                                                                                                                                                                                         US-09-979-558A-1_COPY_458_476
19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                      nucleic search, using sw model
                                                                                                                                                                                                                                                                                        cccggggacgatgacatta 19
                                                                                                                                                                                                                                                                                                                              IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    score greater than or equal to
and is derived by analysis of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        seq length: 0 seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7 4 044444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1329
1882
1882
1982
1989
1989
1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No.
                                                                                                                                                                                                                                                               Perfect score:
                                                                                                                                                                                                                                                                                                                                Scoring table:
```

ö

Gaps

ö

Length 1329; Indels

Score 16.4; DB 17; Pred. No. 1.4e+02; 0; Mismatches 1;

٠ 9

Result

셤 ò

```
Sequence 20, Application US/09818143
| Sequence 20, Application US/09818143
| Patent No. US20020019000A1
| Patent No. US20020019000A1
| APPLICANT: Walker, Michael G. APPLICANT: Volkmuth, Mayne
| APPLICANT: Klingler. Tod M. TITLE OF INVENTION: POLYNUCLEOTIDES COEXPRESSED WITH MATRIX-REMODELING GENES FILE REFERENCE: PB-0004 CIP | CURRENT APPLICATION UNMEER: US/09/818,143
| CURRENT APPLICATION UNMEER: 2001-03-26
| NUMBER OF SEQ ID NOS: 23
| SOFTWARE: PERL PROGRAM
| SEQ ID NO 20
| LENGTH: 1987
                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 238, Application US/09764853
; Batent No. US20020090672A1
; CENERAL INFORMATION:
; APPLICATION:
TILLE OF INVENTION: NOUSE:
CURRENT APPLICATION NUMBER: US/09/764,853
; CURRENT APPLICATION NUMBER: US/09/764,853
; CURRENT FILING DATE: 2001-01-17
; Prior application data removed - consult PALM or file wrapper; NUMBER OF SEQ ID NOS: 939
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 238
; LENGTH': 1926
                                                                                                                                                                                                                                                                                                                                                                        .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                         Length 1882;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     86.3%; Score 16.4; DB 9; Length 1926; 94.4%; Pred. No. 1.4e+02; tive 0; Mismatches 1; Indels 0.
                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                         Score 16.4; DB 14;
Pred. No. 1.4e+02;
0; Mismatches 1;
              LOCATION: (22)

OTHER INFORMATION: n equals a,t,g, or c
NAME/KEY: misc feature
LOCATION: (223)
OTHER INFORMATION: n equals a,t,g, or c
NAME/KEX: misc feature
LOCATION: (1840)
OTHER INFORMATION: n equals a,t,g, or c
LOCATION: (1849)
COTHER INFORMATION: n equals a,t,g, or c
US-10-102-806-301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  590 CTCGGGGACGATGACATT 573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   546 CTCGGGGACGATGACATT 529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CCCGGGGACGATGACATT 18
                                                                                                                                                                                                                                                                                                                                                                                                                         1 CCCGGGGACGATGACATT 18
                                                                                                                                                                                                                                                                                                                           Query Match 86.3%;
Best Local Similarity 94.4%;
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 94.4
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA ORGANISM: Homo sapiens
NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 4
US-09-764-853-238/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-764-853-238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        °
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match

86.3%; Score 16.4; DB 9; Length 1882;
Best Local Similarity 94.4%; Pred. No. 1.46+02;
Matches 17; Conservative 0; Mismatches 1; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 301, Application US/10102806
; Bublication No. US20030054421A1
; GENERAL INPOWARTON:
    APPLICANT: Rosen et al.
    TITLE OF INVENTION: Nucleic Acids, Proteins and Antibodies
    TITLE OF INVENTION: Nucleic Acids, Proteins and Antibodies
; FILE REFERENCE: PA10391C1
; CURRENT APPLICATION NUMBER: US/10/102,806
; CURRENT FILING DATE: 2002-03-22
; PRIOR APPLICATION NUMBER: 09/925,298
; PRIOR FILING DATE: 2001-08-10
; PRIOR FILING DATE: 2001-08-10
; PRIOR FILING DATE: 1909-03-08
; PRIOR FILING DATE: 1999-03-12
; NUMBER OF SEQ ID NOS: 846
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 301
LENGTH: 1882
                                                                                                                                                                                                                                                           TITLE OF INVENTION: Nucleic Acids, Proteins and Antibodies
FILE REPRENCE: PA103
CURRENT APPLICATION NUMBER: US/09/925,298
CURRENT FILING DATE: 2001-08-10
PRIOR APPLICATION NUMBER: PCT/US00/05881
PRIOR APPLICATION NUMBER: 60124,270
PRIOR FILING DATE: 1999-03-12
NUMBER OF SEQ ID NOS: 846
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION: (22)
OTHER INFORMATION: n equals a,t,g, or c
NAME/KEY: misc feature
LOCATION: (223)...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; OTHER INFORMATION: n equals a,t,g, or c
US-09-925-298-301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OTHER INFORMATION: n equals a,t,g, or
NAME/KEY: misc feature
LOCATION: (1840)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OTHER INFORMATION: n equals a,t,g, or NAME/KEY: misc feature LOCATION: (1849)
                                                                                                                                                                                      ; Sequence 301, Application US/09925298; Publication No. US20020039764A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        546 Crcededacearcarr 529
                                                                         999 CTCGGGGACGATGACATT 982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CCCGGGGACGATGACATT 18
                           1 CCCGGGGACGATGACATT 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: misc feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 3
US-10-102-806-301/c
                                                                                                                                               RESULT 2
US-09-925-298-301/c
```

ð 유 OTHER INFORMATION: 3948614CB1

US-09-818-143-20

TYPE: DNA ORGANISM: Homo sapiens

FEATURE:

TYPE: DNA ORGANISM: Homo sapiens

3

```
PRIOR FILING DATE: 1998-09-18
PRIOR APPLICATION NUMBER: 60/101071
PRIOR FILING DATE: 1998-09-18
PRIOR PILING DATE: 1998-09-22
PRIOR PILING DATE: 1998-09-22
PRIOR APPLICATION NUMBER: 60/101471
PRIOR PILING DATE: 1998-09-23
                               PPLICATION NUMBER: 60/099812
[LING DATE: 1998-09-10
                                                                                                           FILING DATE: 1998-09-10
APPLICATION NUMBER: 60/099816
FILING DATE: 1998-09-10
APPLICATION NUMBER: 60/100385
FILING DATE: 1998-09-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 1998-09-17
APPLICATION NUMBER: 60/100710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 1998-09-17
APPLICATION NUMBER: 60/100711
FILING DATE: 1998-09-17
APPLICATION NUMBER: 60/100848
                                                                                                                                                                                                                         FILING DATE: 1998-09-15
APPLICATION NUMBER: 60/100388
FILING DATE: 1998-09-15
                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 1998-09-16
APPLICATION NUMBER: 60/100627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 1998-09-16
APPLICATION NUMBER: 60/100662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/100849
FILING DATE: 1998-09-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 60/100919
FILING DATE: 1998-09-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: 60/101014
PRIOR FILING DATE: 1998-09-18
PRIOR APPLICATION NUMBER: 60/101068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 60/101474
FILING DATE: 1998-09-23
APPLICATION NUMBER: 60/101475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR FILING DATE: 1998-09-23
PRIOR APPLICATION NUMBER: 60/101738
PRIOR FILING DATE: 1998-09-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/101916
FILING DATE: 1998-09-24
                                                                                                                                                                                                                                                                                                                                    FILING DATE: 1998-09-15
APPLICATION NUMBER: 60/100584
                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 1998-09-16
APPLICATION NUMBER: 60/100661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 1998-09-16
APPLICATION NUMBER: 60/100664
FILING DATE: 1998-09-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/100683
FILING DATE: 1998-09-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 1998-09-18
APPLICATION NUMBER: 60/101068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/101472
FILING DATE: 1998-09-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60/101476
FILING DATE: 1998-09-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 1998-09-23
APPLICATION NUMBER: 60/101479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 60/101743
FILING DATE: 1998-09-24
                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 60/100390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/100684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/100930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/101477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/101741
FILING DATE: 1998-09-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 60/101915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60/102207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1998-09-18
     1998-09-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1998-09-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1998-09-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 1998-09-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1998-09-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1998-09-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LING DATE:
                                                                                                                 PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Stewart. Timochy A.
APPLICANT: Tumas, Daniel
APPLICANT: Tumas, Daniel
APPLICANT: Watenabe, Colin K.
APPLICANT: Watenabe, Colin K.
APPLICANT: Watenabe, Colin K.
APPLICANT: Watenabe, Colin K.
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
TITLE OF INVENTION: Acids Encoding the Same
FILE OF INVENTION: Acids Encoding the Same
FILE RFERENCE: PASIOPOLG
CURRENT PILING DATE: 2001-09-04
PRIOR APPLICATION NUMBER: 60/098716
PRIOR APPLICATION NUMBER: 60/098723
PRIOR APPLICATION NUMBER: 60/098723
PRIOR PLING DATE: 1998-09-01
PRIOR PLING DATE: 1998-09-01
PRIOR PLING DATE: 1998-09-02
PRIOR PELING DATE: 1998-09-02
PRIOR PELING DATE: 1998-09-02
PRIOR PELING DATE: 1998-09-02
PRIOR PELING DATE: 1998-09-02
PRIOR APPLICATION NUMBER: 60/09863
PRIOR PLING DATE: 1998-09-02
PRIOR APPLICATION NUMBER: 60/098643
PRIOR PLING DATE: 1998-09-09
PRIOR PRIOR DATE: 1998-09-09
PRIOR PLING DATE: 1998-09-09
PRIOR PRIOR PLING DATE: 1998-09-09
PRIOR PRIOR DATE: 1998-09-09
PRIOR PRIOR PLING DATE: 1998-09-09
PRIOR PRIOR DATE: 1998-09-09
PRIOR PRIOR PLING DATE: 1998-09-09
PRIOR PRIOR DATE: 1998-09-09
PRIOR PRIOR PLING DATE: 1998-09-09
PRIOR PRIOR DATE: 1998-09-09
PRIOR PRIOR PLING DATE: 1998-09-09
                                                            ö
                                                            Gaps
                                                          ö
Query Match 86.3%; Score 16.4; DB 9; Length 1987; Best Local Similarity 94.4%; Pred. No. 1.4e+02; Matches 17; Conservative 0; Mismatches 1; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Godowski, Paul J.
Grimaldi, Christopher J.
Gurney, Austin L.
Hillan, Kenneth J.
                                                                                                                                                                                                                                                                                                     Sequence 76, Application US/09946374 Publication No. US20030073129A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/099763
FILING DATE: 1998-09-10
APPLICATION NUMBER: 60/099792
FILING DATE: 1998-09-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 60/099808
                                                                                                                                                 733 CTCGGGGACGATGACATT 716
                                                                                                           1 CCCGGGGACGATGACATT 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pan, James
Paoni, Nicholas F.
Roy, Margaret Ann
Smith, Victoria
Stewart, Timothy A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ferrara, Napoleone
Fong, Sherman
Gao, Wei-Qiang
Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
APPLICANT: Desnoyers, Luc
APPLICANT: Baton, Dan L.
                                                                                                                                                                                                                                                RESULT 6
US-09-946-374-76/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR
PRIOR
                                                                                                                 ò
                                                                                                                                                               d
```

```
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic TITLE OF INVENTION: Acids Encoding the Same FILE REPERBENCE: P2830PIC14
CURRENT APPLICATION NUMBER: US/10/006,856A
CURRENT FILING DATE: 2002-05-10
RUMBER OF SEQ ID NOS: 477
Prior Application removed - See File Wrapper or Palm
SEQ ID NO 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Pan, James APPLICANT: Paoni, Nicholas F. TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic TITLE OF INVENTION: Acids Encoding the Same
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Prior Application removed - See File Wrapper or Palm NUMBER OF EQ ID NOS: 477
SEQ ID NO 76
LENGTH: 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 16.4; DB 14;
Pred. No. 1.4e+02;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILE REFERENCE: P2830P1C4
CURRENT APPLICATION NUMBER: US/10/006,818A
CURRENT FILING DATE: 2001-12-06
                                                                                                                                                                                                                                                           Ferrara, Napoleone
Fong, Sherman
Gao, Wei-Qiang
Goddard, Audrey
Godowski, Paul J.
Grimaldi, Christopher J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ferrara, Napoleone
Fong, Sherman
Gao, Wei-Qiang
Goddwrd, Audrey
Grimaldi, Christopher J.
Gurney, Austin L.
                                                                        Sequence 76, Application US/10006856A Publication No. US20030044841A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-006-818A-76/c
; Sequence 76, Application US/10006818A
; Publication No. US20030054406A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       732 crcededaccarcarr 715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CCCGGGGACGATGACATT 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 94.4%;
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                     Gurney, Austin L. Hillan, Kenneth J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Paoni, Nicholas F.
                                                                                                                                                            APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
APPLICANT: Desnoyers, Luc
APPLICANT: Eaton, Dan 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
APPLICANT: Desnoyers, Luc
APPLICANT: Eaton, Dan 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; ORGANISM: Homo sapiens
US-10-006-856A-76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pan, James
                                                        JS-10-006-856A-76/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 16.4; DB 10;
Pred. No. 1.4e+02;
0; Mismatches 1;
R FILING DATE: 1998-09-29
R APPLICATION NUMBER: 60/102307
R FILING DATE: 1998-09-29
R FILING DATE: 1998-09-29
R FILING DATE: 1998-09-29
R FILING DATE: 1998-09-29
R APPLICATION NUMBER: 60/102331
R APPLICATION NUMBER: 60/102484
R FILING DATE: 1998-09-30
R APPLICATION NUMBER: 60/102570
R FILING DATE: 1998-09-30
R APPLICATION NUMBER: 60/102570
R FILING DATE: 1998-09-30
R APPLICATION NUMBER: 60/102571
R FILING DATE: 1998-09-30
R FILING DATE: 1998-10-01
R APPLICATION NUMBER: 60/102687
R FILING DATE: 1998-10-01
R APPLICATION NUMBER: 60/102687
R FILING DATE: 1998-10-01
R APPLICATION NUMBER: 60/102687
R FILING DATE: 1998-10-01
R APPLICATION NUMBER: 60/102958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 1998-10-20
APPLICATION NUMBER: 60/105002
FILING DATE: 1998-10-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLING DATE: 1998-10-07
PPLICATION NUMBER: 60/103315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 1998-10-07
APPLICATION NUMBER: 60/103395
FILING DATE: 1998-10-07
APPLICATION NUMBER: 60/103396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 1998-10-07
APPLICATION NUMBER: 60/103449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 1998-10-08
APPLICATION NUMBER: 60/103679
FILING DATE: 1998-10-08
APPLICATION NUMBER: 60/103711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/105000
FILING DATE: 1998-10-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/105104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 1998-10-21
APPLICATION NUMBER: 60/105169
FLING DATE: 1998-10-22
APPLICATION NUMBER: 60/105266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 1998-10-22
APPLICATION NUMBER: 60/105693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 1998-10-06
APPLICATION NUMBER: 60/103314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 1998-10-07
APPLICATION NUMBER: 60/103328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 1998-10-06
APPLICATION NUMBER: 60/103633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60/103678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 1998-10-08
APPLICATION NUMBER: 60/104257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/104987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 1998-10-26
APPLICATION NUMBER: 60/105694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 60/105807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 60/103401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     86.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 1998-10-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 1998-10-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LING DATE: 1998-10-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1998-10-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 1998-10-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 17; Conserva
                                                   PRIOR PRIOR
```

TYPE: DNA ORGANISM: Homo sapiens

a a

ö

ò

```
PRIOR PULING DATE: 1998-09-15
PRIOR PLING DATE: 1998-09-16
PRIOR PLING DATE: 1998-09-17
PRIOR PLING DATE: 1998-09-18
PRIOR PLING DATE: 1998-09-23
PRIOR PLING DATE: 1998-09-24
PRIOR PLING DATE: 1998-09-29
PRIOR PLING DAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R FILING DATE: 1998-09-29
R APPLICATION NUMBER: 60/102240
R FILING DATE: 1998-09-29
R PILING DATE: 1998-09-29
R FILING DATE: 1998-09-29
R APPLICATION NUMBER: 60/102330
                                      1998-09-
                                                                                                                                                                                                                                                                                                                                                                                                 0.00 0.00

0.00 0.00 0.00

1. In David ers, Luc , David even , Met-Odang , Met-Odang
                                                                                                                               ö
                                                                                                                               Gaps
                                                                                                                         ö
                                                            Score 16.4; DB 14; Length 1989;
Pred. No. 1.4e+02; 0; Mismatches 1; Indels 0;
                                                                                                                                                                                                                                                                                                                                     RESULT 9
US-10-006-485A-76/c
; Sequence 76, Application US/10006485A
; Publication No. US20030064062A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/099815
FILING DATE: 1998-09-10
                                                                                                                                                                                                                     732 CTCGGGGACGATGACATT 715
                                                                                                                         ;
0
                                                                                                                                                                                     1 CCCGGGGACGATGACATT 18
                                                            86.3%;
                                                            Query Match 86.3
Best Local Similarity 94.4
Matches 17; Conservative
US-10-006-818A-76
```

```
and Transmembrane Polypeptides and Nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Prior Application removed - See File Wrapper or Palm
NUMBER OF SEQ ID NOS: 477
SEQ ID NO 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 16.4; DB 14;
Pred. No. 1.4e+02;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Paoni, Nicholas F.
TITLE OF INVENTION: Secreted and Transmembrai
TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: P2830P1C34
CURRENT APPLICATION NUMBER: US/10/013,907A
CURRENT FILING DATE: 2001-12-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S-10-015-499A-76/c
Sequence 76, Application US/10015499A
Publication No. US20030065142A1
GENERAL INFORMATION:
                                                                                                                                                        Application US/10013907A
No. US20030064925A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Godowski, Paul J.
Grimaldi, Christopher J.
Gurney, Austin L.
Hillan, Kenneth J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Godowski, Paul J.
Grimaldi, Christopher J
732 CTCGGGGACGATGACATT 715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CCCGGGGACGATGACATT 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
APPLICANT: Beston, Dan I.
APPLICANT: Ferrara, Napoleone
APPLICANT: Ferrara, Napoleone
APPLICANT: Fong, Sherman
APPLICANT: Gao, Wei-Qiang
APPLICANT: Godard, Audrey
                                                                                                                                                                                                                                                                                                                                            Ferrara, Napoleone
Fong, Sherman
Gao, Wei-Qiang
Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 86.3%;
Best Local Similarity 94.4%;
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gurney, Austin L. Hillan, Kenneth J
                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pan, James
                                                                                                      RESULT 10
US-10-013-907A-76/c
; Sequence 76, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-013-907A-76
                                                                                                                                                                                      Publication No
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                   A APPLICATION NUMBER: 60/102331

3R FILING DATE: 1998-09-29

3R FILING DATE: 1998-09-30

3R APPLICATION NUMBER: 60/102484

3R FILING DATE: 1998-09-30

3R APPLICATION NUMBER: 60/102570

3R PELING DATE: 1998-09-30

3R FILING DATE: 1998-09-30

3R FILING DATE: 1998-09-30

3R APPLICATION NUMBER: 60/102571

3R FILING DATE: 1998-00-30

3R APPLICATION NUMBER: 60/102671

3R FILING DATE: 1998-10-01

3R APPLICATION NUMBER: 60/102965

3R FILING DATE: 1998-10-01

3R APPLICATION NUMBER: 60/102965

3R FILING DATE: 1998-10-07

3R APPLICATION NUMBER: 60/10318

3R APPLICATION NUMBER: 60/103318

3R APPLICATION NUMBER: 60/103318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFLIENCE DATE: 1998-10-07

RAPPLICATION NUMBER: 60/103396

RAPPLICATION NUMBER: 60/103409

RETLING DATE: 1998-10-07

RETLING DATE: 1998-10-07

RETLING DATE: 1998-10-07

RETLING DATE: 1998-10-06

RAPPLICATION NUMBER: 60/103633

RETLING DATE: 1998-10-08

RETLING DATE: 1998-10-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 60/104257
FILING DATE: 1998-10-14
APPLICATION NUMBER: 60/104987
FILING DATE: 1998-10-20
APPLICATION NUMBER: 60/105000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 1998-10-27
APPLICATION NUMBER: 60/105881
FILING DATE: 1998-10-27
APPLICATION NUMBER: 60/105882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 1998-10-20
APPLICATION NUMBER: 60/105002
ALLING DATE: 1998-10-20
APPLICATION NUMBER: 60/105104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 1998-10-21
APPLICATION NUMBER: 60/105169
FILING DATE: 1998-10-22
APPLICATION NUMBER: 60/105266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 1998-10-26
APPLICATION NUMBER: 60/105694
FILING DATE: 1998-10-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 1998-10-27
APPLICATION NUMBER: 60/106023
FILING DATE: 1998-10-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 60/105807
     FILING DATE: 1998-09-29
```

.. 0

Gaps

ô

Length 1989; Indels

```
and Transmembrane Polypeptides and Nucleic
APPLICANT: Pan, James

APPLICANT: Pan, James

TITLE OF INVENTION: Secreted and Transmembrane Polypept

TITLE OF INVENTION: Acids Enceding the Same
FILE REFERENCE: P2830P1C42

CURRENT APPLICATION NUMBER: US/10/015,499A

CURRENT FILING DATE: 2001-12-11

PRIOR APPLICATION removed - See File Wrapper or Palm

NUMBER OF SEQ ID NOS: 477

SEQ ID NO 76

LENGTH: 1989
```

Query Match 86.3%; Score 16.4; DB 14; Best Local Similarity 94.4%; Pred. No. 1.4e+02; Matches 17; Conservative 0; Mismatches 1;

ö

Gaps

0

Length 1989; Indels

à

ö

```
APPLICANT: Eaton, Dan I.
APPLICANT: Eaton, Dan I.
APPLICANT: Eaton, Dan I.
APPLICANT: Ferrara, Napoleone
APPLICANT: God, Wei-Oiang
APPLICANT: Godowach, Audrey
APPLICANT: Godowach, Paul J.
APPLICANT: Godowach, Paul J.
APPLICANT: Grimaldi, Christopher J.
APPLICANT: Gurney, Austin L.
APPLICANT: Fann, James
APPLICANT: Pan, James
APPLICANT: Acids Encoding the Same
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic TITLE OF INVENTION: Acids Encoding the Same FILE REPERBING: P2830PIC45
CURRENT APPLICATION NUMBER: US/10/015,869A
CURRENT FILING DATE: 2002-06-25
Prior Application removed - See File Wrapper or Palm
NUMBER OF SEQ ID NOS: 477
LENGTH: 1989
                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 86.3%; Score 16.4; DB 14; Length 1989; Best Local Similarity 94.4%; Pred. No. 1.4e+02; Matches 17; Conservative 0; Mismatches 1; Indels 0;
                                                                                                                                                                                                                                                                                                                                               Length 1989;
                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                          Score 16.4; DB 14;
Pred. No. 1.4e+02;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-012-121A-76/c
; Sequence 76, Application US/10012121A
; Betuence 76, Application No. US20030073810A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 76, Application US/10006116A Publication No. US20030082626A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    732 CTCGGGGACGATGACATT 715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               732 crcececeáceárcacári 715
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CCCGGGGACGATGACATT 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CCCGGGGACGATGACATT 18
                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 94.4%;
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ferrara, Napoleone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Botstein, David
Desnoyers, Luc
Eaton, Dan 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Baker, Kevin P. APPLICANT: Botstein, David APPLICANT: Desnoyers, Luc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
APPLICANT: Desnoyers, Luc
APPLICANT: Eaton, Dan 1.
APPLICANT: Ferrara, Napol'
                                                                                                                                                                                                                                      TYPE: DNA
CORGANISM: Homo sapiens
US-10-015-869A-76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; ORGANISM: Homo sapiens
US-10-012-121A-76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-006-116A-76/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Pan, James
APPLICANT: Panoit, Ucholas F.
APPLICANT: Panoit, Ucholas F.
TITLE OF INVENTION: Scretced and Transmembrane Polypeptides and Nucleic
TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: P2830PLC46
CURRENT APPLICATION NUMBER: US/10/015,393A
CURRENT PILING DATE: 2002-06-10
                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                             ..
0
                                                                                                      Score 16.4; DB 14; Length 1989; Pred. No. 1.4e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 86.3%; Score 16.4; DB 14; Length 1989; 94.4%; Pred. No. 1.4e+02; tive 0; Mismatches 1; Indels 0;
                                                                                                                                                             Indels
                                                                                                               1.4e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Prior Application removed - See File Wrapper or Palm NUMBER OF SEQ ID NOS: 477
                                                                                                      Query Match

Best Local Similarity 94.4%; Pred. No. 1.40+
Matches 17; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ferrara, Napoleone
Fong, Sherman
Gao, Wei-Oiang
Gaddard, Audrey
Godowski, Paul J.
Grimaldi, Christopher J.
Hillan, Kenneth J.
                                                                                                                                                                                                                                                                                                                                                             US-10-015-393A-76/c

Sequence 76, Application US/10015393A

Publication No. US22030069179A1

GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 76, Application US/10015869A Publication No. US20030073130A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Godowski, Paul J.
Grimaldi, Christopher J.
                                                                                                                                                                                                                                                           732 Crcegededarcarr 715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            crceeceacearcarr 715
                                                                                                                                                                                                             1 CCCGGGGACGATGACATT 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CCCGGGGACGATGACATT 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ferrara, Napoleone
Fong, Sherman
Gao, Wei-Qiang
Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gurney, Austin L.
Hillan, Kenneth J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pan, James
Paoni, Nicholas F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
APPLICANT: Desnoyers, Luc
APPLICANT: Eaton, Dan 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Baker, Kevin P. APPLICANT: Botstein, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity 94.4
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Desnoyers, Luc
Eaton, Dan 1.
  ; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-015-499A-76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-015-393A-76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 13
US-10-015-869A-76/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT
                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
```

ö

```
FILING DATE: 1998-09-17
                                                                                                                                                                  PRIOR PRIOR
       Godowski, Paul J.
Grimaldi, Christopher J.
Gurney, Austin L.
Hillan, Kenneth J.
  Gao, Wei-Qiang
Goddard, Audrey
Fong, Sherman
 APPLICANT:
APPLICANT:
APPLICANT:
```

R APPLICATION NUMBER: 60/100710
R FILING DATE: 1998-09-17
R PILING DATE: 1998-09-17
R FILING DATE: 1998-09-17
R APPLICATION NUMBER: 60/100848
R FILING DATE: 1998-09-18 RELING DATE: 1998-09-23

RAPPLICATION NUMBER: 60/101738

RELING DATE: 1998-09-24

RAPPLICATION NUMBER: 60/101915

RELING DATE: 1998-09-24

RELING DATE: 1998-09-24

RELING DATE: 1998-09-24

RELING DATE: 1998-09-24

RELING DATE: 1998-09-27

RELING DATE: 1998-09-27

RELING DATE: 1998-09-29

RELING DATE: 1998-09-29

RELING DATE: 1998-09-29

RELING DATE: 1998-09-29 RELING DATE: 1998-09-17

R APPLICATION NUMBER: 60/100930

R FILING DATE: 1998-09-17

R FILING DATE: 1998-09-17

R FILING DATE: 1998-09-18

R FILING DATE: 1998-09-18

R FILING DATE: 1998-09-18

R APPLICATION NUMBER: 60/101068

R FILING DATE: 1998-09-18

R APPLICATION NUMBER: 60/101279

R RILING DATE: 1998-09-22

R APPLICATION NUMBER: 60/101471

R APPLICATION NUMBER: 60/101471

R APPLICATION NUMBER: 60/101471

R FILING DATE: 1998-09-22

R FILING DATE: 1998-09-22

R FILING DATE: 1998-09-23

R FILING DATE: 1998-09-23

R FILING DATE: 1998-09-23 R FILING DATE: 1998-09-29
R APPLICATION NUMBER: 60/102484
R FILING DATE: 1998-09-30
R APPLICATION NUMBER: 60/102487
R FILING DATE: 1998-09-30
R APPLICATION NUMBER: 60/102570
R FILING DATE: 1998-09-30 APPLICATION NUMBER: 60/102330 FILING DATE: 1998-09-29 APPLICATION NUMBER: 60/102331 FILING DATE: 1998-10-02
APPLICATION NUMBER: 60/103258
FILING DATE: 1998-10-06
APPLICATION NUMBER: 60/103314
FILING DATE: 1998-10-07 APPLICATION NUMBER: 60/101474 FILING DATE: 1998-09-23 APPLICATION NUMBER: 60/101475 APPLICATION NUMBER: 60/101476 FILING DATE: 1998-09-23 APPLICATION NUMBER: 60/101477 FILING DATE: 1998-09-23 APPLICATION NUMBER: 60/101479 FILING DATE: 1998-10-01
APPLICATION UNMBER: 60/102687
FILING DATE: 1998-10-01
APPLICATION NUMBER: 60/102965 APPLICATION NUMBER: 60/100849 FILING DATE: 1998-09-18 FILING DATE: 1998-09-18
APPLICATION NUMBER: 60/100919 APPLICATION NUMBER: 60/102307 FILING DATE: 1998-09-29 APPLICATION NUMBER: 60/102571 FILING DATE: 1998-09-30 APPLICATION NUMBER: 60/102684 FILING DATE: 1998-09-29 FILING DATE: 1998-09-23

APPLICATION NUMBER: 60/103315

```
Score 16.4; DB 14; Length 1989;
Pred. No. 1.4e+02;
0; Mismatches 1; Indels 0;
                            APPLICATION NUMBER: 60/103395
FILING DATE: 1998-10-07
APPLICATION NUMBER: 60/103396
FILING DATE: 1998-10-07
                                                                                                                                                                                      APPLICATION NUMBER: 60/103678
FILING DATE: 1998-10-08
APPLICATION NUMBER: 60/103679
                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60/104987
FILING DATE: 1998-10-20
                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 1998-10-20
APPLICATION NUMBER: 60/105002
FILING DATE: 1998-10-20
APPLICATION NUMBER: 60/105104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 1998-10-22
APPLICATION NUMBER: 60/105693
FILING DATE: 1998-10-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 60/105694
FILING DATE: 1998-10-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 1998-10-27
APPLICATION NUMBER: 60/106023
FILING DATE: 1998-10-28
                                                                                                                            APPLICATION NUMBER: 60/103449
                                                                                                                                                      APPLICATION NUMBER: 60/103633
FILING DATE: 1998-10-08
                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60/103711
FILING DATE: 1998-10-08
                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60/104257
FILING DATE: 1998-10-14
                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60/105000
                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 1998-10-21
APPLICATION NUMBER: 60/105169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 1998-10-27
APPLICATION NUMBER: 60/105881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/105266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/105807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/105882
                                                                                             ICATION NUMBER: 60/103401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ouery Match
Best Local Similarity 94.4%;
Matches 17; Conservative
                                                                                                           FILING DATE: 1998-10-07
                                                                                                                                                                                                                                         FILING DATE: 1998-10-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 1998-10-22
PRIOR
```

732 CTCGGGGACGATGACATT 715

ö

Gaps ö

ઠે 셤 Search completed: April 12, 2005, 10:50:17 Job time : 290 secs

THIS PAGE BLANK (USPTO)

```
Sequencing : T7
LIBRARY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Vector
R.Site 1
R.Site 2
                                                                                                                                        15.8
15.8
15.8
15.8
                                                                                                                                                                                                                                                      RESULT 1
AG416365/c
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                       ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AG416365 Mus muscu
CR004289 Forward s
W92952 zd92e10.r1
AA037563 zk34a03.r
W45082 zc21g10.r1
CN395703 170004240
CN918724 030207ABP
AA115144 z110£09.r
CO610497 DG8-9413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EST473282
603024016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGENCOURT
AGENCOURT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AI817726 wk25e07.x
W16559 zb11b12.r1
AI772402 EST253502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RH68421.5
EST375926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DG8-174n1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                602013893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             603027673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DG8-138n1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BX439049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AL553402
                                                       April 12, 2005, 08:13:54 ; Search time 1738 Seconds (without alignments) 416.123 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A1772402 B1627185 A772402 B1627185 B2059891 BF342569 BG127540 B1754114 COS96974 I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BQ881886 BQ717752 BX439049 BX4553402 B
                                                                                                                                                                                          68479088
GenCore version 5.1.6
(c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                      34239544 segs, 19032134700 residues
                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                 US-09-979-558A-1_COPY_458_476
19
                                                                                                                                                                                                                                                                                                                                                                                                                                          SUMMARIES
                                                                                                                                                                                                                                          Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                      - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              W92952
AA037563
W45082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BI627185
AW963853
CO598991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BF342569
BG127540
BI758715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BI754114
CO596974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BQ881886
BQ717752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BX439049
AL553402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AI817726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AA115144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AI772402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CO610497
                                                                                                                     1 cccggggacgatgacatta 19
                                                                                                                                      IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                            Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length DB
                                                                                                                                                                                                                                                                                             gb_est1:
gb_htc::*;
gb_est43::*;
gb_est6::*;
gb_gss1::*;
         Copyright
                                                                                                                                                                                                                                                                                    EST: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \dot{\omega} \dot{\omega}
                                                                                                          Perfect score:
                                                                                                                                       Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OM nucleic
                                                                                                                                                                      Searched:
                                                                                                                     Sequence:
                                                                                                                                                                                                                                                                                     Database
                                                          Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        222
223
233
243
253
253
253
253
253
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š.
```

/tissue type="mixture of kidney and spleen" /clone\_lib="MSMg01 Mouse Male BAC Library"

Location/Qualifiers 1. 695 /organism="Mus musculus molossinus"

: pBACe3.6

/mol\_type="genomic DNA"
sub\_species="molossinus"
/db\_xref="taxon:57486"
/clone="MSMg01-278N11.T7"
/sox="male"

```
Hattori, M., Toyoda, A., Noguchi, H., Kojima, T. and Sakaki, Y.

Hattori, M., Toyoda, A., Noguchi, H., Kojima, T. and Sakaki, Y.

Direct Submission

Submitted (17-NNV-2003) Masahira Hattori, The Institute of Physical and Chemical Research (RIKEN), Genomic Sciences Center (GSC);

1-7-22 Suchiro-chou, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:hattori@gsc.riken.jp, URL:http://hgp.gsc.riken.go.jp/, Tel:81-45-503-9111, Fax:81-45-503-9170)

Clones are derived from the mouse BAC library MSMg01. For BAC library availability, please contact Kuniya Abe (abe@rtc.riken.jp). Tsukuba Institute of Physical and Chemical Research (RIKEN) 3-1-1 Koyadai, Tsukuba, 305-0074 Japan phone: 81-298-36-9189, fax: 81-298-36-9199

PRIMERS
                                                                                                                                                                                                                                                                                                                                                                                                                                    AG416365 695 bp DNA linear GSS 03-JUN-2004
Mus musculus molossinus DNA, clone:MSMg01-278N11.T7, genomic survey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                   AV849138
odi78c12.
odi78b12.
BOHSZ48TR
                              full-leng
MXRA8 Hum
                                                                          b8f06ne.r
NCSC5C8T7
                                                                                                                                     NCW07A9T7
                                                                                                                                                                                                                                                                             511009 MA
                                                                                                        BNLGH1597
                                                                                                                        AV849197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hattori,M., Toyoda,A., Noguchi,H., Kojima,T. and Sakaki,Y.
BAC end Sequences of Library MSMg01
Unpublished
                          CRS92046 AW88823 AW88823 AZ9817 E AI329817 E AI39818 AV84918 BH95458 E BH95454 CL98218 CL98218 E BR02518 E BR026518 E BR106525 E
                                                                                                                                                                                                                                                                                          CF613570
BQ640964
                                                                                                                                                                                                                                                                                                                                                          ALIGNMENTS
                                                                                       AI397616
AW186852
AV849197
AI398536
AV849138
                                                                                                                                                                    BH954585
BH954543
                                                                                                                                                                                                                CL982185
BZ672389
                                                                                                                                                                                                                                              AV025145
BP105595
                                                                                                                                                                                                                                                                                          CF613570
BQ640964
                                                                                                                                                                                                   BH423226
                                                                                                                                                                                                                                                                             BM106925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AG416365.1 GI:48059339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus molossinus
Mus musculus molossinus
                                                          373
435
511
511
639
648
686
701
701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AG416365
0 0 0 0 0 0 0
```

DEFINITION

ACCESSION

VERSION KEYWORDS

Matches

g à

ORGANISM

SOURCE

REFERENCE AUTHORS TITLE JOURNAL

FEATURES

ORIGIN

```
Chissoe, S., Dietrich, N., DuBuque, T., Favello, A., Gish, W., Hawkins, M., Kucaba, T., Lacy, M., Le, M., Le, N., Mardis, E., Moore, B., Morre, M., Parsons, J., Prange, C., Rifkin, L., Rohlfing, T., Schellenberg, K., Soares, M.B., Tan, F., Thierry-Meg, J., Trevaskis, E., Underwood, K., Wohldmann, P., Waterston, R., Wilson, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Generation and analysis of 280,000 human expressed sequence tags Genome_Res. 6 (9), 807-828 (1996)
Fax: 314 286 1810

Email: est@watson.wustl.edu

This clone is available royalty-free through LLNL ; contact the

IMAGE Consortium (info@image.llnl.gov) for further information.

Insert Length: 998 Std Error: 0.00

Seq primer: mob.REGA+ET

High quality sequence stop: 279.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA037563 340 bp mRNA linear EST 10-MAY-1
ZK34e03.rl Soares pregnant_uterus_NDHPU Homo sapiens cDNA clone
IMAGE:484684 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Washington University School of Medicine
444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1800
Fax: 314 286 1810
Email: est@wastson.wustl.edu
This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 (bases 1 to 340)
Hillier,L., Lennon,G., Becker,M., Bonaldo,M.F., Chiapelli,B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 16.4; DB 7; Length 337; Pred. No. 1e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                                      organism="Homo sapiens"
                                                                                                                                                                                                                          /mol_type="mRNA"
/db_xref="GDB:1273514"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                       /clone="IMAGE:356970"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    256 CTCGGGGACGATGACATT 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18
                                                                                                                                                                                                                                                                                                                  /sex="unknown"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AA037563.1 GI:1512663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      86.3%;
ilarity 94.4%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CCCGGGGACGATGACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Wilson RK
                                                                                                                                                                             1. .337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and Marra, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97044478
                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
JOURNAL
MEDLINE
PUBMED
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 4
                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2d92e10.rl Soares fetal heart NDHH19W Homo sapiens CDNA clone IMAGE:356970 5' sīmilar to contains element MER22 repetitive element;, mRNA sequence.
                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                            GSS 05-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 793)
Adams,D.J., Biggs,P.J., Cox,A.V., Davies,R.M., van der Weyden,L., Jonkers,J., Smith,J., Plumb,R.W., Taylor,R.G., Nishijima,I., Yu,Y., Rogers,J., and Bradley,A.
                                                                                                                                                                                                                                                                                         CR004289 10 CR004289 10 CR004289 10 CR004289 10 CR00428 Insertion targeting and chromosome engineering clone MHPN182j15, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Primatee, Catarrhini, Hominidae, Homo.

(Dases 1 to 337)
Hiller,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M.,
Holman,M., Rudeaba,T., LehM., Lennon,G., Marra,M.,
Parsons,J., Rifkin,L., Rohlfing,T., Soares,M., Tan,F.,
Trevaskis,E., Waterston,R., Williamson,A., Wohldmann,P. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (20-FEB-2004) Sanger Centre, Hinxton, Cambridgeshire, CB10 1SA, UK. http://www.sanger.ac.uk/MICER Location/Qualifiers
                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 17.4; DB 9; Length 793; Pred. No. 3.1e+02;
                                                   Length 695;
                                                                                              1; Indels
                                               Score 17.4; DB 9;
Pred. No. 3.1e+02;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                     GSS; genome survey sequence; MICER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      organism="Mus musculus"
/mol_type="genomic DNA"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /clone="MHPN182j15"
/clone_lib="MHPN"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The WashU-Merck EST Project Unpublished (1995)
                                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus (house mouse)
Mus musculus
                                                                                                                                                                               cccccccarcacarca 550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCGGGGACGATGACATCA 252
                                                                                                                                       1 CCCGGGGACGATGACATTA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCGGGGACGATGACATTA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                               CR004289.1 GI:49737280
                                               91.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           91.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             W92952.1 GI:1422104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   fomo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Wilson RK
                                                                                            18; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                          Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                             CR004289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         270
                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                 RESULT 2
CR004289/c
```

SOURCE ORGANISM

REFERENCE AUTHORS

TITLE JOURNAL COMMENT

<

DEFINITION

RESULT 3

g

ACCESSION

VERSION KEYWORDS

ò

Gaps

o,

Indels

EST 10-MAY-1997

ö

```
/mol_type="mRNA"
/db_xref="taxon:9606"
/tissue_type="embryonic stem cells, cell lines H1, H7, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CN395703 419 bp mRNA linear EST 16-MAY-2004
                                                                                                                                               double-stranded cDNA was size selected, ligated to Eco RI adapters (Pharmacia), digested with Not I and cloned into the Not I and Eco RI sites of a modified pT7T3 vector (Pharmacia). Library went through one round of normalization to a Cot = 5. Library constructed by Bento Soares and M.Fatima Bonaldo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /clone_lib="GRN_ES"
/note="oligo dT_primed, full-length enriched cDNA library
from undifferentiated hES cell lines H1 (p32), H7 (p29),
and H9 (p26) maintained in feeder-free conditions"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 419)
Brandenberger, N., Wei, H., Zhang, S., Lei, S., Murage, J., Fisk, G.J., Li, Y., Xu, C., Fang, R., Guegler, K., Rao, M.S., Mandalam, R., Lebkowski, J and Stanton, L. W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Transcriptome characterization elucidates signaling networks that control human ES cell growth and differentiation Mat. Biotechnol. 22 (6), 707-716 (2004)
Contact: Brandenberger R
Regenerative Medicine
               /clone lib="Soares senescent fibroblasts NbHSF"
/note="Vector: pT773D (Pharmacia) with a modified
polylinker V TYPE: phagemid; Site 1: Not I; Site 2: Eco
RI; lst strand cDNA was primed with a Not I - oligo(dT)
                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                         Score 16.4; DB 7; Length 369;
Pred. No. 1e+03;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    86.3%; Score 16.4; DB 7; Length 419; 94.4%; Pred. No. 1e+03; ive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Geron Corporation
230 Constitution Drive, Menlo Park, CA 94025, USA
Tel: 650 473 8658
Fax: 650 473 7760
Email: rbrandenberger@geron.com
Insert Length: 419 Std Brror: 0.00.
/lab_host="DH10B (ampicillin resistant)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                           158 CTCGGGGACGATGACATT 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      crceegeaceargacarr 146
                                                                                                                                                                                                                                                                                                                                                                                                                  18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CCCGGGGACGATGACATT 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CN395703.1 GI:47383298
                                                                                                                                                                                                                                                                                                                            86.3%;
ilarity 94.4%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                1 CCCGGGGACGATGACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                            Best_Local_Similarity
Matches 17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
Matches 17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CN395703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          163
                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CN395703/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                              Wilson,R.
The WashU-Merck EST Project
L Unpublished (1995)
Contact: Wilson RK
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1800
Fax: 314 286 1810
Email: est@watson.wustl.edu
This clone is available royalty-free through LLNL; contact the
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
Insert Length: 1423 Std Brror: 0.00
Seg primer: mob.REGA+ET
High quality sequence stop: 326.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         W45082 2621g10.r1 Soares senescent_fibroblasts_NbHSF Homo sapiens cDNA clone IMAGE:323010 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutherita; Primatees; Catarrhini; Hominidae; Homo.

(Dases 1 to 369)
Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M., Holman,M., Rucaba,T., Le,M., Lennon,G., Marra,M., Parsons,J., Rifkin,L., Rohlfing,T., Soares,M., Tan,F., Tar,F., Materston,R., Williamson,A., Wohldmann,P. and
                                                                                                                                                                                                                          /dev_stage="adult"
/lab_host="pH10B"
/clone_lib="Soares_pregnant_uterus_NbHPU"
/note="Organ: uterus; Vector: pT7T3-Pac; Site_1: Not 1;
Site_2: ECo RI; lst strand cDNA was primed with a Not I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               86.3%; Score 16.4; DB 1; Length 340; 94.4%; Pred. No. 1e+03; ive 0; Mismatches 1; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /clone="IMAGE:323010"
/tissue_type="senescent fibroblast"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  constructed by M. Fatima Bonaldo."
           Figure 1: -28M13 rev2 from Amersham Seq primer: -28M13 rev2 from Amersham High quality sequence stop: 121.

Location/Qualifiers
  Std Error: 0.00
                                                                                                 /organism="Homo sapiens"
/mol_type="mRNA"
/mb_xref="GDB:378398"
/db_xref="taxon:9606"
/clone="IMAGE:484684"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /mol_type="mRNA"
/db_xref="GDB:1254522"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18 CTCGGGGACGATGACATT 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CCCGGGGACGATGACATT 18
                                                                                                                                                                                                                   sex="female"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  W45082.1 GI:1329213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (human)
Homo sapiens
  Insert Length: 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 94.49
"...hes 17; Conservative
                                                                                        . .340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 5
W45082/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORIGIN
```

ઠે 셤 ö

```
CO610497 531 bp mRNA linear EST 21-JUL-2004
DG8-94n3 DG8-testis Canis familiaris CDNA 3', mRNA sequence.
CO610497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Carnivora, Fissipedia, Canidae, Canis.
1 (bases 1 to 531)
Schlueter, T., Hermanns, J., Weindel, M., Schuette, D., Kranz, H., Henrich, J. and Loebbert, R.
Dog arrayTAG cDNA clone collection Unpublished (2004)
Contact: Thomas Schlueter
LION bioscience AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /db_xref="taxon:9615"
/tissue_type="testis"
/tissue_type="adult"
/dav stage="adult"
/lab_nost="DH108"
/clone lib="n08-testis"
/note="Organ: testis; Vector: Dog pBluescript LION"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 86.3%; Score 16.4; DB 1; Length 513; Best Local Similarity 94.4%; Pred. No. 1e+03; Matches 17; Conservative 0; Mismatches 1; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        86.3%; Score 16.4; DB 7; Length 531; 94.4%; Pred. No. 1e+03; ive 0; Mismatches 1; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Waldhoferstrasse 98, D-69123 Heidelberg, Germany Tel: +49 6221 4038 150
Fax: +49 6221 4038 290
Email: Thomas.Schlueter@lionbioscience.com.
Location/Qualifiers
Seg primer: -28M13 rev2 from Amersham
High quality sequence stop: 392.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1. .531
/organis="Canis familiaris"
/mol_type="mRNA"
/strain="Beagle"
                                                                                                                       /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="GDB:3806533"
/db_xref="taxon:9606"
/clone="IMAGE:501545"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CCCGGGGACGATGACATT 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 CCGGGGACGATGACATTA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CO610497.1 GI:50456061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Canis familiaris (dog)
                                                                                                                                                                                                                                                                                      /sex="female"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCGGGGACGATGACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 94.4%
Best Local Similarity
Local Similarity
Local Similarity
Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Canis familiaris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCUS
DEFINITION
ACCESSION
                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CO610497/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VERSION
KEYWORDS
SOURCE
                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DRIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                      Malus x domestica (cultivated apple)
Malus x domestica
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
rosids; eurosids I; Rosales; Rosaceae; Maloideae; Malus.
1 (bases 1 to 443)
Beuning,L., Bowen,J., Crowhurst,R., Gleave,A., Janssen,B.,
MCATTHREY,S., Newcomb,R., Ross,G., Snowden,K., Walton,E. and Yauk,Y.
Unpublished (2004)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              zllof09.rl Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone
IMAGE:501545 5', mRNA sequence.
                             CN918724 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-2004 1.00-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Primatee; Catarrhini, Hominidae, Homo.
1 (Dases 1 to 513)
Hillier,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M., Hulrman,M., Kuodba,T., Le,M., Lennon,G., Marra,M., Parsons,J., Rifkin,L., Rohlfing,T., Soares,M., Tan,F., Treyaskis,E., Waterston,R., Williamson,A., Wohldmann,P. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contract: Gleave, A.
Contract: Gleave, A.
Sequencing Facility
The Horticulture and Food Research Institute of New Zealand Ltd
120 Mt Albert Rd, Mt Albert, Auckland, New Zealand
Tel: 00 64 09 815 4200
Fax: 00 64 09 815 4201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /tissue_type="Root tips (distal 1.5 cm)"
/clone lib="(ARPB) M9 root tips"
/note="Vector: pBluescript SK(-); Library sequenced by
Genesis Research & Development"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: est@watson.wustl.edu
This clone is available royalty-free through LLNL ; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Wilson, R.
The WashU-Merck EST Project
Unpublished (1995)
Contact: Wilson RK
Washington University School of Medicine
444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1810
Fax: 314 286 1810
Email: est@watson.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 86.3%; Score 16.4; DB 7; Length 443; Best Local Similarity 94.4%; Pred. No. 1e+03; Matches 17; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Malus x domestica"
/mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Email: est@hortresearch.co.nz.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /db_xref="taxon:3750"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /clone="ABPB006067"
                                                                                         ABPB006067, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  392 CCCGGGGACGATGACTTT 409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CCCGGGGACGATGACATT 18
                                                                                                                                                           CN918724.1 GI:48391537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AA115144.1 GI:1670568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1. .443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bource
                                                                                                                                                                                                                       SOURCE
ORGANISM
                                 LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                        VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
CN918724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AA115144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
```

DRIGIN

8

ö

; 0

(

SOURCE ORGANISM

REFERENCE AUTHORS

TITLE

JOURNAL

COMMENT

DEFINITION

ACCESSION VERSION KEYWORDS

RESULT 10 AI817726

셤

```
/done libe Soares fetal lung NbH19W"
//clone libe Soares libe I libe Soares libe Soares libe Soares libe Soares libe Soares (Parmacia), double-stranded cDNA was size selected, ligated to Eco Riadapters (Pharmacia), digested with Not I and cloned into the Not I and Eco RI sites of a modified pT7T3 vector (Pharmacia). Library went through one round of normalization to a Cot = 5. Library constructed by Bento Soares and M.Fatima Bonaldo. This library was constructed from the same fetus as the fetal heart library, Soares fetal heart NbHH19W."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta, Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta, Spermatophyta, core eudicots, asterids, lamids, Solanales, Solanaceae; Solanum, Lycopersicon. (bases 1 to 539)

1 (bases 1 to 539)

2 Ascenzo,M., He,X., Lyman,J., Matern,A.L., Vision,T., Holt,I.E., Liang,F., Upton,J., Ronning,C.M., Craven,M.B., Fujii,C.Y., Bowman,C.L., Nierman,W., Fraser,C.M., Venter,J.C., Tanksley,S.D.,
                                                                                        Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             539 bp mRNA linear EST 18-MAY-20
tt, Cornell Lycopersicon esculentum cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information. Seq primer: ETPrimer
                                                                                                            Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 537)
Hilliar,L., Clark,N., Dubuque,T., Elliston,K., Hawkins,M.,
Holman,M., Hultman,W., Kucaba,T., Le,M., Lennon,G., Marra,M.
Parsons,J., Rifkin,L., Rohlfing,T., Soares,M., Tan,F.,
Trevaskis,E., Waterston,R., Williamson,A., Wohldmann,P. and
                                                                                                                                                                                                                                                                                                         The WashU-Merck EST Project
Unpublished (1995)
Contact: Wilson RK
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Fel: 314 286 1810
Email: est@watson.wwstl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 16.4; DB 7; Length 537;
Pred. No. 1e+03;
0; Mismatches 1; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /dev_stage="19 weeks"
/lab_host="DH10B (ampicillin resistant)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Seq primer: ETPrimer
High quality sequence stop: 342.
Location/Qualifiers
1. 537
/organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Lycopersicon esculentum (tomato)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /mol_type="mRNA"
/db_xref="GDB:1246658"
/db_xref="taxon:9606"
/clone="IMAGE:301727"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EST253502 tomato resistant, Co
clone cLER2H9, mRNA sequence.
AI772402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CCCGGGGACGATGACATT 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AI772402.1 GI:5270443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 94.4%;
Matches 17; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCGGGGACGATGACATT
                                   Homo sapiens (human)
                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AI772402
                                                                                                                                                                                                                                                                                          Wilson, R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AI772402/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
KEYWORDS
SOURCE
                                                                                                                                             REFERENCE
                                                                                                                                                                          AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 12
     KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                            COMMENT
                                   SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Donaldo, Ph.D.

CDNA Library Arrayed by: Greg Lennon, Ph.D.

CDNA Library Arrayed by: Greg Lennon, Ph.D.

DNA Sequencing by: Washington University Genome Sequencing Center

Clone distribution: NCI-CGAP clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:

www-bio.llni.gov/bbrp/image/image.html

wms-bio.llni.gov/bbrp/image/image.html

seq primer: -400P from Gibco

High quality sequence stop: 468.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           537 bp mRNA linear EST 29-APR-1996 zblib12.rl Soares fetal lung NbHL19W Homo sapiens CDNA clone IMAGE:301727 5' sīmilar to contains element MSR1 repetitive element i, mRNA sequence. W16559
                                                                                                                                                                    AI817726 533 bp mRNA linear EST 21-DEC-1999 wk25e07.xl NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2413380 3',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3']; double-stranded cDNA was ligated to Eco RI daptors (Pharmacia), digested with Not I and cloned into
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 adaptors (Pharmacia), digested with Not I and cloned into the Not I and Eco RI sites of the modified pT/T3 vector. Library is normalized, and was constructed by Bento Soares and M.Fatina Bonaldo."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: cgapbs-r@mail.nih.gov
Tissue Procurement: David N. Louis, M.D., Myrna R. Rosenfeld M.D.,
                                                                                                                                                                                                                                                                                                                                                                                           Eukaryotta, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.

I (basea 1 to 533)
NCI/NINDS-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute / National Institute of Neurological Stocke, Brain Tumor Genome Anatomy Project (CGAP/BTGAP), Tumor Gene Index
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                M. Fatima
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ch 86.3%; Score 16.4; DB 1; Length 533; 1 Similarity 94.4%; Pred. No. 1e+03; 17; Conservative 0; Mismatches 1; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cDNA Library Preparation: M. Bento Soares, Ph.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:2413380"
407 CCGGGGACGTTGACATTA 390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCGGGGACGATGACATT 520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CCCGGGGACGATGACATT 18
                                                                                                                                                                                                                                                                                 AI817726.1 GI:5436805
                                                                                                                                                                                                                                                                                                                                            Homo sapiens (human)
                                                                                                                                                                                                                               mRNA sequence.
AI817726
                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 17; Conserv
```

source

FEATURES

ö

Gaps

. 0

EST 18-MAY-2001

503

ð

ORIGIN

DEFINITION

ACCESSION

VERSION

RESULT 11 W16559/c LOCUS

```
Seg primer: Reverse.
                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                              ď
                                                                                                                                                                                                                                                                                                         17;
                                                                                                                                                                                                                                                                                                                                                                                            456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 15
CO598991/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AW963853/c
                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOURCE
                                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BI627185
RH68421.5prime RH Drosophila melanogaster normalized Haad pFlc-1
Norsophila melanogaster colon clone RH68421 5 similar to igl:
PBan0018285 Go: [ligand binding or carrier (Go:0005488); calmodulin
binding (GO:0005516)] located on: 2R 51E5-51E7;: 08/24/2001, mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Drosophila melanogaster (fruit fly)

Drosophila melanogaster

Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;

Bukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;

Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;

Ephydroidea; Drosophilidae; Drosophila.

1 (basea; Lto 554)

1 (basea; Lto 554)

2 tapleton, M., Brokstein, P., Hong, L., Tyler, D., Berman, B.,

Garlson, J., Champe, M., Chavez, C., Dorsett, V., Farfan, D., Frise, E.,

George, R., Gonzalez, M., Guarin, H., Harris, N., Li, P., Liao, G.,

Misra, S., Mungall, C.-J., Nunco, J., Pacleb, J., Paragas, V., Park, S.,

Phylanenavong, S., Wan, K., Yu, C., Lewis, S.E., Celniker, S. and
                                                                                                                                                                                                                                                            /mol_type="mRNA"
/cultivar="R11-12 (35S::Pto in Rio Grande x Money Maker)"
/db xref="taxn:4081"
/clone="cleR2H9"
                                                                                                                                                                                                                                                                                                                                                                                                          /clone lib="tomato resistant, Cornell" /clone lib="tomato resistant, Site_1: EcoRI; Site_2: /note="Vector: pBlueScript SK(-); Site_1: EcoRI; Site_2: Xhol: cLER - Tomato Pseudomonas Resistant EST Library. Directionally cloned cDNAs inserted into pBlueScript SK(-) at 5' end with EcoRI and 3' end with Xhol site."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Lawrence Berkeley National Lab
One Cyclotron Rd, Berkeley, CA 94720, USA
Eax: 510 486 6798
Email: http://www.fruitfly.org/EST, est@fruitfly.berkeley.edu
Plate: RH.684 row: B column: 9
High quality sequence stop: 462.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                            Clemson University Genomics Institute
Clemson University
Ilo Ozordan Hall, Clemson, SC 29634, USA
Email: http://www.genome.clemson.edu/orders/index.html
5 prime sequence.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 16.4; DB 1; Length 539; Pred. No. 1e+03;
Giovannoni,J.J. and Martin,G.B.
Generation of ESTs from Pseudomonas resistant tomato
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.554
/organism="Drosophila melanogaster"
/mol_type="mRNA"
/db_xref="taxon:7227"
                                                                                                                                                                                                                                          'organism="Lycopersicon esculentum"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BDGP/HHMI RH Drosophila EST Project
                                                                                                                                                                                                                                                                                                                                                 /tissue_type="leaf"
/dev_stage="4-week old"
/lab_host="SOLR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 455 CCCGGGGACGATGACTTT 438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CCCGGGGACGATGACATT 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BIĜ27185
BIĜ27185.1 GI:15522710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Stapleton, M. BDGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     86.3%;
94.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unpublished (2001
                                                                 Contact: CUGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          l Similarity
17; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rubin, G.M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                        Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
                    TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 13
BI627185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                               FEATURES
                                                                 COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
```

셤 8

€

```
AW963853 562 bp mRNA linear EST 01-JUN-2000
EST375926 MAGE resequences, MAGH Homo sapiens cDNA, mRNA sequence.
AW963853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CO598991 594 bp mRNA linear EST 21-JUL-2004 DG8-174n16 DG8-testis Canis familiaris cDNA 3', mRNA sequence. CO598991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                       Inote="Organ: head, Vector: pFlc1, Site_1: XhoI, Site_2: BamHI, Library was kindly generated by Piero Carninci at the RIKEN. The library was normalized and excised using Cre recombinase. Plasmid cDNA library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 562)
1 (bases 1 to 562)
1 (Ase 1 to 562)
2 (Ase 2 to 562)
2 (Ase 2 to 562)
2 (Ase 2 to 562)
3 (Ase 2 to 562)
4 (Ase 2 to 562)
5 (Ase 2 to 562)
6 (Ase 2 to 562)
7 (Ase 2 to 562)

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Assessment of gene expression patterns in a model of colon tumor metastasis using a 19,200 element cDNA microarray Unpublished (2000)
/sex="male and female"
/dev_stage="Adult"
/lab_host="NH5-alpha TonA"
/clone lib="RH Drosophila melanogaster normalized Head
pFlc-1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4; Length 554;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 86.3%; Score 16:4; DB 2; Length 562; Best Local Similarity 94.4%; Pred. No. 1e+03; Matches 17; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: John Quackenbush
The Institute for Genomic Research
9712 Medical Center Dr., Rockville, MD 20850, USA
PTI: 301 838 9208
Fax: 301 838 0208
Email: john@tigr.org
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/mol type="mRNA"
/db_xref="taxon:9606"
/clone lib="MAGE resequences,
/note="Vector: pBluescriptSKm"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 16.4; DB 4
Pred. No. 1e+03;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
1. .562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCGAGGACGATGACATT 473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CO598991.1 GI:50444555
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AW963853.1 GI:8153689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Canis familiaris (dog)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         86.3%;
ilarity 94.4%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CCCGGGGGACGATGACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CCCGGGGACGATGACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            crceeeeaceareacarr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERSION
KEYWORDS
SOURCE
```

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.

E 1 (bases 1 to 594)

S Schlueter T., Hermanns, J., Weindel, M., Schuette, D., Kranz, H., Henrich, J. and Loebbert, R.

Dog arrayAng CDNA clone collection

Unpublished (2004)

Contact: Thomas Schlueter
LION bioscience AG
Waldhoferstrasse 98, D-69123 Heidelberg, Germany
Tel: +49 6221 4038 150
Fax: +49 6221 4038 150
Fax: +49 6221 4038 150
Email: Thomas Schlueter@lionbioscience.com.

Location/Qualifiers

Location/Qualifiers

Location/Qualifiers

Location/Qualifiers

//mol_type="mmxNa" | Jerusoa | J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /db_xref="taxon:9615"
/tissue_type="testis"
/dov tade=adult"
/lab_host="balla"
/clone_lib="bG8-testis"
/note="Organ: testis; Vector: Dog pBluescript LION"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match

Best Local Similarity 94.4%; Pred. No. 1e+03;
Matches 17; Conservative 0; Mismatches 1; Indels (
Canis familiaris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            source
ORGANISM
                                                                                                                                                                                                                                                                                                                       TITLE
JOURNAL
COMMENT
                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
```

Search completed: April 12, 2005, 10:00:26 Job time : 1746 secs

යි ර

THIS PAGE BLANK (USPIL)

```
E58427 DNA probe f
AU551093 Psychroba
AU551093 Psychroba
AU551101 Psychroba
AB019456 Psychroba
AB016058 Psychroba
AF194191 Unculture
AB016058 Psychroba
AU551107 Psychroba
AU551107 Psychroba
AU551107 Psychroba
AU55193 Bacterium
AY165593 Unculture
AY165593 Unculture
AY165593 Unculture
AY165593 Unculture
AY165593 Unculture
AY165593 Unculture
AY165710 Psychroba
AY167310 Psychroba
AY167310 Psychroba
AY167310 Psychroba
AY167310 Psychroba
                                                                 April 12, 2005, 10:02:04; Search time 6689 Seconds (without alignments) 11054.367 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AB016057 Psychroba
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                               US-09-979-558A-1
1526
1 tttgatcatggctccagatt.....acctgcggctggatcacctc 1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Description
                                                                                                                                                                                                                                                 9416466
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                  4708233 segs, 24227607955 residues
                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
                                             - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                         Post-processing: Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         E58427
PAB16059
PAB510039
PSP551098
PSP551101
AB094456
AB016055
AB114191
AB016058
AB016058
AB016058
AB016058
AB016058
AB016058
AB016058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AY165583
AY167310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AB016057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AF468383
                                                                                                                                                              OMIGONUCE & Gapext 60.0
                                                                                                                                                                                                                                                                      seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                         gb btg: *
gb btg: *
gb btg: *
gb ov: *
gb ov: *
gb pl: *
gb pl: *
gb ro: *
gb ro: *
gb vi: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         115526
1165220
1165220
1165220
1165220
1165220
1165220
1165220
116520
116520
116520
116520
116520
116520
116520
                                                                                                                                                                                                                                                                                                                                GenEmbl:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query
                                                                                                                                                                                                                                                                                                                                                                                          55...
77...
10...
11...
11...
14...
                                                                                                                                                                                                                         0
                                                                                                                                                               Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1526
11526
11526
11098
11091
1004
971
953
856
655
                                                                                                                             Perfect score:
                                                                                                                                                                                                                         Word size :
                                                                                                                                                                                                                                                                      Minimum DB Maximum DB
                                             OM nucleic
                                                                                                                                                                                                                                                                                                                                Database :
                                                                                                                                         Sequence:
                                                                                                                                                                                                   Searched:
                                                                   Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Result
```

AY167301 AF505743

AF468396 Arctic se AY16730 Psychroba AF505746 Gamma pro AJ313425 Psychroba AD094458 Psychroba AD094458 Psychroba AP194193 Unculture AY057116 Psychroba UB5877 Psychrobact AY573041 Psychroba AJ244771 Psychroba AJ244771 Psychroba AJ244771 Psychroba AJ244771 Psychroba AJ244771 Psychroba AY167289 Psychroba AY167289 Psychroba AY24776 Psychroba AY24776 Psychroba AY167289 Psychroba AY220707 Unculture AF505725 Bsacterium AY167281 Psychroba AJ272303 Psychroba AJ272303 Psychroba AJ772804 Psychroba AJ772804 Psychroba AJ772804 Psychroba AJ77286 Psychroba AJ77286 Psychroba AJ77286 Psychroba AJ77286 Psychroba AJ77286 Psychroba AJ773877 Psychroba AY3877 Psychrobact	DNA  16S rRNA  160 reobacter  inlic bact	526; DB 1; Length 1526; o. 0; tches 0; Indels 0; Gaps 0;
AF468396 AF505746 AF505746 PCL313425 AB094458 AP0544768 AF51705 AF517041 PSP244771 AY167289 AY220707 AY220707 AY122804 AY722804 AY722804 AY122804 AY122804 AY122804 AY122804 AY122804 AY122804 AY122804 AY122804 AY122804 AY122804 AY122804		Score 1 Pred. N 0; Misma
1483 14893 14893 14693 1462 177 177 177 178 179 1494 1493 11463 11525 11525 11583 11683 11683 11683 11683 11683 11683 11683 11683 11683 11683 11683 11683 11683 11683 11683 11683 11683 11683	ABO16057 ABO16057 ABO16057 ABO16057.1 GI:6691638 16S ribosomal RNA. ABO16057.1 GI:6691638 16S ribosomal RNA. ABO16057.1 GI:6691638 Bacteria; Proteobacteria; Garateria; Proteobacteria; Garateria; Proteobacteria; Garatyana, A., Honda, D., Yamam Phylogenetic analysis of psylogenetic analysis of psyloses of the psylogenetic analysis of psyloses of the psylogenetic analysis of psyloses of the psylogenetic analysis of psylogenetic Submission Microbiology; Direct Submission Microbiology; Japan (E-mail: maruyama@nibh. Fax:+81-208-54-6412) Anol-type="genomic farmin" NIBH PSK6 (Ab_xref="taxon:112") All Staf="all" NIBH PSK6" All Stafe" NIBH PSK6" All	100.0%; cy 100.0%; ervative
5566 37.1 5566 37.1 5566 37.1 5573 36.2 37.1 5573 36.2 37.1	AB016057 Psychrobacter strain:NIBH P AB016057.1 G 165 ribosomal Psychrobacter Psychrobacter Psychrobacter Psychrobacter Bacteria; Pro Maruyama,A., Psychrobacter 1 (sites) Maruyama,A., Psychrobacter 1 (bases)	Match Local Similarity 100 hes 1526; Conservative
0 222222222222222222222222222222222222	RESULT 1 ABO16057 LOCUS DEFINITION ACCESSION VERSTON KEYWORDS SOUNCE ONGANISM TITLE JOURNAL MEDLINE PUBMED REFERENCE AUTHORS TITLE JOURNAL SOUNCE AUTHORS TITLE JOURNAL REFERENCE AUTHORS TITLE JOURNAL REFERENCE AUTHORS TITLE JOURNAL REFERENCE AUTHORS TITLE JOURNAL REFERENCE AUTHORS TITLE JOURNAL OURIGIN	Query Match Best Local Matches 152

ठ व ठ व

g

8 6 8 6 8 6 8 6 8 6 8 6

```
ESS427.1 GI:18622289

S UP 2000333680-A/1.

unidentified

unclassified.

EMALIANDARA, Kitamura, R. and Kurane, R.

DAB probe for detecting novel psychlophile

Patent: JP 2000333680-A 1 05-DEC-2000;

AGENCY OF IND SCIENCE & TECHNOL

OS PRYCHADACTER pacificus

PN JP 2000333680-A/1

PN JP 200033680-A/1

PR 25-MAY-1999 JP 1999145342

PR AKTHIKO MARUYAMA, KEIKO KITAMURA, RYUICHIRO KURANE PC

C12N15/09, C12N1/20, C12Q1/68//(C12N15/09, C12R1:01), (C12N1/20, PC

C12R1:01),

CC

FH KRY

ET FRA

ET FRA

FT FRA

FT FRA

FT FRA

ET FRA

                                                                                                                                                                           1260
                                                                                                                                                                                                                                                                                                                                                                        1380
                                                                                                                                                                                                                                                                                                                                                                                                                         1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1500
                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                      TACGACCAGGGCTACACGTGCTACAATGGTAGGTACAGGGGCAGCTACACAGGGATG 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PAT 31-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGAGGGCGATCACCACGGTGTGGTGGTGACTGGGGTGAAGTCGTAACAAGGTAGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITGATCATGGCTCCAGATTGAACGACTGGGCGGCAGGCTTAACACATGCAAGTCGAGCG
                                                                                                                                                                                                                                                                                                                                                                                                  GTACACACGCCCGTCACACCATGGGAGTTGATTGCACCAGAAGTGGTTAGCCTAACTTA
                                                                          AGGATACTGCCAGTGACAAACTGGAGGAAGGCGGGGACGACGTCAAGTCATCATGGCCCT
                                                                                                        AGGATACTGCCAGTGACAAACTGGAGGAAGGCGGGGACGACGTCAAGTCATCATGCCCT
                                                                                                                                                                           TACGACCAGGGCTACACGTGCTACAATGGTACAGAGGGCAGCTACACAGGGATG
                                                                                                                                                                                                                                                                         TGATGCGAATCTCAAAAAGCCTATCGTAGTCCAGATTGGAGTCTGCAACTCGACTCCATG
                                                                                                                                                                                                                                                                                                                                                                        AAGTAGGAATCGCTAGTAATCGCGGATCAGAATGCCGCGGTGAATACGTTCCCGGGCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGAGGGCGATCACCACGGTGTGGTCGTGACTGGGGGGAAGTCGTAACAAGGTAGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1526;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA probe for detecting novel psychlophile. E58427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers (1). (1526).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; Score 1526; I; Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1. .1526
/organism="unidentified"
/mol_type="genomic DNA"
/db_xref="taxon:32644"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1501 AGGGAACCTGCGGCTGGATCACCTC 1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGGGAACCTGCGGCTGGATCACCTC 1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 100.0%;
Matches 1526; Conservative 0;
                                                                                                                             1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1441
                                                                            1141
                                                                                                                                                                             1201
                                                                                                                                                                                                                           1201
                                                                                                                                                                                                                                                                            1261
                                                                                                                                                                                                                                                                                                                                                                        1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 2
E58427
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DRIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                          ò
                                                                                                                   g
                                                                                                                                                                           8
                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                      엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGAAGAACCTTACCTGGTCTTGACATACACAGAATCTTGTAGAGATACGAGAGAGTGCCTTC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGAATTGTGATACAGGTGCTGCATGGCTGTCGTCACTCGTGTGTGAGATGTTGGGTT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1081 AAGTCCCGCAACGAGCGCAACCCTTGTCCTTAGTTACCAGCACTTCGGGTGGGAACTCTA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGAAGAACCTTACCTGGTCTTGACATACACAGAATCTTGTAGAGATACGAGAGTGCCTTC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TAATCGGAATTACTGGGCGTAAAGCGAGCGTAGGTGGCTTGATAAGTCAGATGTGAAATC 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAAATGAATTGACGGGGCCCGCACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACG 960
                                                                                                   GAAACGATGATAGCTTGCTATTAGGCGTCGAGCNGCCGGACGGGTGAGTAATACTTAGGA 120
                                                                                                                                                                                                                                121 ATCTACTAGTAGTGGGGGGTAGCTCGGGGAAACTCGAATTAATACCGCATACGTCTACG 180
                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                             GGAGAAAGCCAGGGGNTCATTAGACCTTGCGCTATTAGATGAGCCTAAGTCGGATTAGCTA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCGGGCTTAACCTGGGAACTGCATCTGAAACTGTTAGGCTAGAGTAGGTGGGGAAGGGAAG 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TAGAATTICAGGTGTAGCGGTGAAATGCGTAGAATCTGAAGGAATACCGATGGCGAAGG 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841 AGTGACGCAGCTAACGCAATAAGTAGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACT 900
                                                                                                                                                    GAAACGATGATAGCTTGCTATTAGGCGTCGAGCNGCCGGACGGGTGAGTAATACTTAGGA 120
                                                                                                                                                                                                    ATCTACCTAGTAGTGGGGGATAGCTCGGGGAAACTCGAATTAATACCGCATACGTCTACG 180
                                                                                                                                                                                                                                                                                                                                                                                                  GATGGTGGGGTAAAGGCCTACCATGGCGACGATCTGTAGCTGGTCTGAGAGGATGATCAG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCACACCGGGACTGAGACACGGCCCGGACTCTACGGGAGGCAGCAGTGGGGAATATTGGA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAATGONGGGAACCCTGATCCAGCCATGCGGCGTGTGAAGAAGAAGGCCTTTTGGTTGTAA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCACTITAAGCAGTGAAGACTCTTCGGTTAATACCCGGGGACGATGACATTAGCTG 480
                                              60
                                                                                                                                                                                                                                                                                                                                                                                                                              GATGGTGGGTAAAGGCCTACCATGGCGACGATCTGTAGCTGGTCTGAGAGGATGATCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGCTTCCTGGCATCATACTGACACTCGAGGCTCGAAAGCGTGGGTAGCAAACAGGATTAG
                                 TTTGATCATGGCTCCAGATTGAACGACTGGGCGCAGGCTTAACACACATGCAAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAATGGNGGGAACCCTGATCCAGCCATGCCGCGTGTGTGAAGAAGGCCTTTTGGTTGTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCACTITAAGCAGTGAAGACTCTTCGGTTAATACCCGGGGACGATGACATTAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCGGGCTTAACCTGGGAACTGCATCTGAAACTGTTAGGCTAGAGTAGGTGAGGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TAGAATTTCAGGTGTAGCGGTGAAATGCGTAGAGATCTGAAGGAATACCGATGGCGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGCTTCCTGGCATCATACTGACACTGAGGCTCGAAAGCGTGGGTAGCAAACAGGATTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAAATGAATTGACGGGGCCCGCACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAGAAAGCAGGGGNTCATTAGACCTTGCGCTATTAGATGAGCCTAAGTCGGATTAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGAATAAGCACCGGCTAACTCTGTGCCAGCAGCCGCGGTAATACAGAGGGTGCAAGGCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGAATAAGCACCGGCTAACTCTGTGCCAGCAGCGGGGTAATACAGAGGGTGCAAGCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TAATCGGAATTACTGGGCGTAAAGCGAGCGTAGGTGGCTTGATAAGTCAGATGTGAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATACCCTGGTAGTCCACGCCGTAAACGATGTCTACTAGTCGTTGGGGTCCCTTGAGGACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATACCCTGGTAGTCCACGCCGTAAACGATGTCTACTAGTCGTTGGGTCCCTTGAGGACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGTGACGCAGCTAACGCAATAAGTAGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1021
                                                                                                        61
                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         196
                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
```

8 8 8

음 중 ﴿

1380 1380 1440

```
Maruyama, A. and Kitamura, K.

Maruyama, A. and Kitamura, K.

Direct Submission

Submitted (07-JUL-1998) Akihiko Maruyama, National Institute of Bioscience and Human-Technology, Department of Applied and Environmental Microbiology, 1-1 Higashi, Tsukuba, Ibaraki 305-8566, Japan (E-mail:maruyama@nibh.go.jp, Tel:+81-298-54-6062,

Fax:+81-298-54-6412)

1. 1520

// Cocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear BCT 10-MAY-2000 rRNA, partial sequence,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Maruyama, A., Honda, D., Yamamoto, H., Kitamura, K. and Higashihara, T. Phylogenetic analysis of psychrophilic bacteria isolated from the Japan Trench, including a description of the deep-sea species sychrobacter pacificensis sp. nov

Int. J. Syst. Evol. Microbiol. 50 Pt 2, 835-846 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16S ribosomal RNA.
Psychrobacter pacificensis
Psychrobacter pacificensis
Bacteria, Proteobacteria, Gammaproteobacteria, Pseudomonadales,
                                                            TACGACCAGGGCTACACACGTGCTACAATGGTAGGTACAGAGGGCAGCTACACAGCGATG
                                                                              TACGACCAGGGCTACACACGTGCTACAATGGTACAACAGAGGGCAGCTACACACAGCGATG
                                                                                                                       TGATGCGAATCTCAAAAAGCCTATCGTAGTCCAGATTGGAGTCTGCAACTCGACTCCATG
                                                                                                                                                     1261 TGATGCGAATCTCAAAAAGCCTATCGTAGTCCAGATTGGAGTCTGCAACTCGACTCCATG
                                                                                                                                                                                                                                                                   GTACACACGCCGTCACACCATGGGAGTTGATTGCACCAGAAGTGGTTAGCCTAACTTA
                                                                                                                                                                                                                                                                                                                              1441 GTGAGGCGATCACCACGGTGTGGATCGATGACTGGGGTGAAGGTCGTAACAAGGTAGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGCTATTAGATGAGCCTAAGTCGGATTAGCTAGATGGTGGGGTAAAGGCCTACCATGGCG
AGGATACTGCCAGTGACAAACTGGAGGAAGGCGGGGACGACGTCAAGTCATCATGGCCCT
                AGGATACTGCCAGTGACAAAACTGGAGGAAGGCGGGGACGTCAAGTCATGGCCT
                                                                                                                                                                                      AAGTAGGAATCGCTAGTAATCGCGGATCAGAATGCCGCGGGGTGAATACGTTCCCGGGCCTT
                                                                                                                                                                                                                  AAGTAGGAATCGCTAGTAATCGCGGATCAGAATGCCGCGCTGAATACGTTCCCGGGCCTT
                                                                                                                                                                                                                                                    GTACACACCGCCCGTCACACCATGGGAGTTGATTGCACAGAAGTGGTTAGCCTAACTTA
                                                                                                                                                                                                                                                                                                                 GTGAGGGCGATCACCACGGTGTGGTTCGATGACTGGGGTGAAGTCGTAACAAGGTAGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1520;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AB016059 1520 bp DNA Psychrobacter pacificensis DNA for 16S strain:NIBH P2K18.
AB016059.1 GI:6691640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <1. . >1520
/product="168 ribosomal RNA'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity 99.8%; Pred. No. 0; 84; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                            AGGGGACCTGCGCTGGATCACCTC 1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               db_xref="taxon:112002"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Moraxellaceae; Psychrobacter.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (sites)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Simi
Matches 1294;
                             1141
                                                                                                                                                                                                                  1321
                                                                                                                                                                                                                                                                                1381
1141
                                                            1201
                                                                                        1201
                                                                                                                       1261
                                                                                                                                                                                      1321
                                                                                                                                                                                                                                                  1381
                                                                                                                                                                                                                                                                                                                  1441
                                                                                                                                                                                                                                                                                                                                                                               1501
                                                                                                                                                                                                                                                                                                                                                                                                              1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 209
                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 3
AB016059
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
                     g
                                                                                g
                                                                                                             ò
                                                                                                                                                셤
                                                                                                                                                                                    ò
                                                                                                                                                                                                           g
                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                         ò
                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGTCCCGCAACGAGCGCAACCCTTGTCCTTAGTTACCAGCACTTCGGGTGGGAACTCTA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGAATTGTGATACAGGTGCTGCTGTCGTCGTCGTCTGTGTGTCGTGAGATGTTGGGTT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        960
                                                                                                                                        240
                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAAATGAATTGACGGGGCCCCGCACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACG
                                                                         ATCTACCTAGTAGTGGGGGTAGCTGGGGGAAACTCGAATTAATACCGCATACGTCTACG
                                                                                           ATCTACCTAGTGGGGGATAGCTCGGGGAAACTCGAATTAATACCGCATACGTCTACC
                                                                                                                                                       GGAGAAAGCGGGGTCGATTAGACCTTGCGCTATTAGATGAGCCTAAGTCGGATTAGCTA
                                                                                                                                                                                                                     GATGGTGGGTAAAGGCCTACCATGGCGATCTGTAGTTGTTGTTGTGAGAGGATGATCAG
                                                                                                                                                                                                                                                                                CAATGGNGGGAACCCTGATCCAGCCATGCCGCGTGTGTGAAGAAGAAGCCTTTTGGTTGTAA
                                                                                                                                                                                                                                                                                                                                                                                                             CCCGGGCTTAAACCTGGGAACTGCATCTGAAAACTGTTAGGCTAGAGTGAGGTGAGAGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TAGAATTTCAGGTGTAGCGGTGAATGCGTAGAGATCTGAAGGAATACCGATGGCGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TAGAATTTCAGGTGTAGCGGTGAAATGCGTAGAGATCTGAAGGAATACCGATGGCGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGCTTCCTGGCATCATACTGACACTGAGGCTCGAAAGCGTGGGTAGCAAACAGGATTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGAATTGTGATACAGGTGCTGCATGGCTGTCGTCGTCGTGTCGTGGGTTTGGGTT
                                          GAAACGATGATAGCTTGCTATTAGGCGTCGAGCNGCCGGACGGGTGAGTAATACTTAGGA
                                                                                                                                    GGAGAAAGCAGGGUTCATTAGACCTTGCGCTATTAGATGAGCCTAAGTCGGATTAGCTA
                                                                                                                                                                                                   GATGGTGGGGTAAAAGGCCTACCATGGCGACGATCTGTAGCTGGTCTGAGAGGATGATCAG
                                                                                                                                                                                                                                                                   CCACACCGGGACTGAGACACGGCCCGGACTCTACGGGAGGCAGCAGTGGGAATATTGGA
                                                                                                                                                                                                                                                                                                                                CAATGGNGGGAACCCTGATCCAGCCATGCCGCGTGTGAAGAAGACCCTTTTGGTTGTAA
                                                                                                                                                                                                                                                                                                                                                                                                AGCACTTTAAGCAGTGAAGAAGACTCTTCGGTTAATACCCGGGGACGATGACATTAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGAATAAGCACCGGCTAACTCTGTGCCAGCAGCCGCGGTAATACAGAGGGTGCAAGCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGAATAAGCACCGGCTAACTCTGTGCCAGCGGCGGTAATACAGAGGGTGCAAGCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TAATCGGAATTACTGGGCGTAAAGCGAGCGTAGGTGGCTTGATAAGTCAGATGTGAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TAATCGGAATTACTGGGCGTAAAGCGAGCGTAGGTGGCTTGATAAGTCAGATGTGAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCCGGGCTTAACCTGCATCTGAAACTGTTAGGCTAGAGTAGGTGAGAGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGCTTCCTGGCATCATACTGACACTCGAGGCTCGAAAGCGTGGGTAGCAAACAGGATTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATACCCTGGTAGTCCACGCCGTAAACGATGTCTACTAGTCGTTGGGTCCCTTGAGGACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTGACGCAGCTAACGCAATAAGTAGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGTGACGCAGCTAACGCAATAAGTAGACCGCCTGGGGGAGTACGGCCGCAAGGTTAAAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAAATGAATTGACGGGGCCCGCACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGAAGAACCTTACCTGGTCTTGACATACACAGAATCTTGTAGAGATACGAGAGTGCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1081
             61
                                       61
                                                                         121
                                                                                                     121
                                                                                                                                    181
                                                                                                                                                                     181
                                                                                                                                                                                                    241
                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 8
             ò
                                    셤
                                                                        ઠે
                                                                                             업
                                                                                                                                   Ś
                                                                                                                                                          a
                                                                                                                                                                                         ò
                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                        යි යි
                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                         8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                 જે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    중 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ર્જ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

268

Gaps

0.0   0.0		REFERENCE 1 AUTHORS WANG,F,, TITLE ISOLATION JOURNAL Extremoph PUBNED 15064982 REFERENCE 2 (bases AUTHORS Xiao,X. TITLE Direct Submitted RESOUTCES Xiamen, 3	FEATURES Location/Qualifiers source   .1473     .1474     .1474     .1475     .1475     .1476     .1477		428 TAAGCAGTGAAGAAGCATTCGGTTAATACCGGGGGACGATGCAGTTAGCTGCAGAATA 428 TAAGCAGTGAAGAAGCTTTCGGTTAATACCGGGGGACGATGACATTAGCTGCAGAATA 428 TAAGCAGTGAAGTCTTCGGTTAATACCGGGGACGATGACATTAGCTGCAGAATA 488 AGCACCGGCTAACTCTGTGCCAGCAGCGTAATACAGAGGGTGCAAGCGTTAATCGG 548 AATTACTGGGCGTAAGCTGTGCCAGGGGGGGGGGGGGGG
205 CGCTATTAGATGAGCCTAAGTCGGATTAGCTAGATGGGGGTAAAGGCCTACCATGGCG 264 269 ACGATCTGTAGCTGAGAGGATGATCAGCCACCGGAACTGAGACCGGCCCGGA 328	449 CGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATAAGCACCGGCTAACTCTGTGCC 508  [	629   AAACTGTTAGGCTAGAGTAGGTGAGAGTAGAATTTCAGGTGTGGAAATGC 688		989 ACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTGCATGGC 1048	CTTAGTTACCAGCACTCGGGGGAACTCTAAGGATACTGCGGTGAACTGGGGGA 116 CTTAGTTACCAGCACTTCGGGTGGGAACTCTAAGGATACTGCCGGTGACAAACTGGAGGA 116 AGGCGGGGACGACGTCAAGGCATTCATGGCCCTTACGACTGCAGGGTACACTGGAGGA 112 AGGCGGGACGACGACGTCAAGTCATCATGGCCCTTACGACCAGGGCTACACAGTGCTACAA 122 TGGTAGGTACAAGAGGCAACTCATGGCCCTTACGAACTCTCAAAAAGCCTATCGTA 128

>

	73)	Direct Su L Submitted Resources Xiamen, 3	FEATURES Location/Qualifiers  10.1473   cource	/is /is /db /en		/product="16S ribosomal RNA"	Query Match 71.5%; Score 1091; DB 1; Length 1473; Best Local Similarity 100.0%; Pred. No. 0; Matches 1091; Conservative 0; Mismatches 0; Indels 0; Gaps	Qy 375 CTGATCCAGCCATGCCGCGTGTGTGAAGAGCCTTTTGGTTGTAAAGCACTTTAAAGAG 4	375	QY 435 TGAAGAAGACTCTTCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATAAGCACCG 4	Qy 495 GCTAACTCTGTGCCAGCGGGGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACT 5	Db 495 GCTAACTCTGTGCCAGCGGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACT 5	OY 555 GGGCGTAAAGCGAGCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCT 6	Oy 615 GGGAACTGCATCTGAAACTGTTAGGCTAGAGGTAGGTGAGGGAAGTAGAATTTCAGGTG 6	Db 615 GGGAACTGCATCTGAAACTGTTAGGCTAGAGTGAGAGGAAGTAGAATTTCAGGTG 6	Qy 675 TAGCGGTGAAATGCGTAGAGAATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCAT 7	Db 675 TAGCGGTGAAATGCGTAGAATCTGAAGGAATACCGATGGCGAAGGCAACTTCCTGGCAT	OY 735 CATACTGACGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGTAGTC 7	735 CATACTGACACTGAGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGTAGTC	OY 795 CACGCGTAAACGATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTACTGACGCAGCTAA 8	ころう。 しゅうしゅうしゅう はっちょう はんしょう はんしょう はんしゅう こうじょう はんしゅう こうじょう しゅうしょう こうしゅう はんしょう しょうしょう しょうしょう はんしょう はんしょう はんしょう はんしょう はんしょう しょうしょう しょう しょうしょう しょうしょく しょうしょく しょく しょくりん しょく しょく しょく しょく しょくりん しょく		855 GCCAATAAGTAGACCGCCTGGGGAGTACGCCGCAAGGTTAAAACTCAAATTGACG
Db 608 TTAACCTGGGAACTGCATCTGAAACTGTTAGGCTAGAGTAGGTGAGGGAAGTAGAATT 667	OY 668 TCAGGTGTAGCGGTGAAATGCGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTC 727	OY 728 CTGGCATCATACTGACACTGAGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCT 787	OY 788 GGTAGTCCACGCCGTAAACGATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACG 847	Qy     848 CAGCTAACGCAATAAGTAGACCGCCTGGGGAGTACGCCGCAAGGTTAAAACTCAAATGA 907       Db     848 CAGCTAACGCAATAAGTAGACCGCCTGGGGAGTACGCCCGCAAGGTTAAAACTCAAATGA 907	Oy 908 ATTGACGGGGCCCGCACAAGCGGTGGAGCATGTGGTTAATTCGATGCAACGAAGAA 967	968 CCTTACCTGGTCTTGACATACACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATT	Db 968 CCTTACCTGGTCTTGACATACACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATT 1027  Qy 1028 GTGATACAGGTGCTGCTGTCGTCAGCTCGTGAGATGTTGGGTTAAGTCCC 1087	Db 1028 GTGATACAGGTGCTGCAGGTGGTCGTCGTCGTCGTGGTGTGGATGTTGGGTTAAGTCCC 1087	1088 GCAACGAGCCCATGTCCTTAGTTACCAGCACTTCGGGTGGGAACTCTAAGGATAC	Db 1088 GCAACGGCAACCCTTGTCCTTAGTTACCAGCACTTCGGGTGGGAACTCTAAGGATC 1147 Qy 1148 TGCCAGTGACAAACTGGAGGAGGGGGGGACGTCAAGTCATGATGGCCTTTACGACC 1207	Db 1148 TGCCAGTGACAAACTGGAGGAAGGGGGGGCGTCAAGTCATCATGGCCCTTACGACC 1207	Qy 1208 AGGCTACACGTGCTACAATGGTAGGTACAGAGGCAGCTACACAGCGATGTGATGCG 1267	Db 1208 AGGGCTACACACGTACAATGGTAGGTACAGGGCGAGCTACAGGCGATGTGATGCG 1267 Qy 1268 AATGTCAAAAAGGCTATGGTAGTGCAGATTGGAGTCTGCAACTGGACTCCATGAAGTAGG 1327	Db 1268 AATCTCAAAAAGCCTATCGTAGTTGGAGTCTGCAACTCGAACTCCATGAACTAGA 1327	Qy 1328 AATGGCTAGTAATGGCGGATCAGAATGCCGGGGTGAATAGGTTCCGGGGCTTGTACACA 1387	Db 1328 AATCGCTAGTAATCGCGGATCAGAATGCCGCGGTGAATACGTTCCCGGGCCTTGTACACA 1387	Oy 138B CCGCCGTCACACCAGGAGTTGATTGCACCAGAAGTGGTTAGCCTAACTTAGTGAGGG 1447	Db 1388 CCGCCCGTCACACCATGGGAGTTGATTGCACCAGAAGTGGTTAGCCTAACTTAGTGAGGG 1447	1448 CGATCACCACGGTGTGT 146	Db 1448 CGATCACCACGGTGTGGT 1465	RESULT 5 Dederings	PSP551098 1473 bp DNA linear	DEFINITION ESYCTRODACCER SP. WPIS PARTIAL LOS KNA GENO, ISOLATO WPIS. ACCESSION AJESTINOS

```
TGGTCTTGACATACACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATAC 1034
                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                              TGATCCAGCCATGCCGCGTGTGAAGAAGGCCTTTTGGTTGTAAAGCACTTTAAGCAG 434
                                                                                                                                                                                                                                                                                   TGATCCAGCCATGCCGCGTGTGTGAAGGCCTTTTGGTTGTAAAGCACTTTAAGCAG 434
                                                                                                                                                                                                                                                                                                                                                                                                           554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   614
                                                                                                                                                                                                                                                                                                                                   GAAGAAGACTCTTCGGTTAATACCCCGGGGACGATGACATTAGCTGCAGAATAAGCACCG 494
                                                                                                                                                                                                                                                                                                                                                          GAAGAAGACTCTTCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATAAGCACCG 494
                                                                                                                                                                                                                                                                                                                                                                                                                                           554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATACTGACACTGAGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGTAGTC 794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATACTGACACTGAGAGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGTAGTC 794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACGCCGTAAACGATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCAGCTAA 854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACGCCGTAAACGATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCAGCTAA 854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGCAATAAGTAGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACG 914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGGCCCGCACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACC 974
                                                                                                                                                                                                                                                                                                                                                                                                           CTAACTCTGTGCCAGCAGCAGCGGGGAATACAGAGGGGGGCGAGCGTTAATACGAATTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGGCCCGCACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                       CTAACTCTGTGCCAGCAGCCGCGGTAATACAGAGGTGCAGCGTTAATCGGAATTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGAACTGCATCTGAAACTGTTAGGCTAGAGTAGGTGAGAGGGAAGTAGAATTTCAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCGGTGAAATGCGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCGTAAAGCGAGCGTAGGTGGCTTGATAAGTCAGATGTGAAAATCCCCGGGCTTAACCT
                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                          ö
                                                                                                                                                                                      DB 1; Length 1473;
                                                                                                                                                                                                                          Indels
/isolation_source="deep sea sediment"
/db_xref="taxon:225863"
/environmental_sample
                                                                                                                                                                                                                          .
0
                                                                                                                                /product="16S ribosomal RNA"
                                                                                                                                                                                    71.5%; Score 1091; D: 100.0%; Pred. No. 0; Aismatches
                                                                           /gene="16S rRNA"
<1. .>1473
                                                                                                           /gene="16S rRNA"
                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             상. 점
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
```

PSP551098
1473 bp DNA linear BCT 17-MAY-2004
Psychrobacter sp. wpl8 partial 16S rRNA gene, isolate wp18.
AJ551098
AJ551098.1 GI:34525813
16S ribosomal RNA; 16S rRNA gene.
Psychrobacter sp. wp18
Psychrobacter sp. wp18
Bacteria, Proteobacteria; Gammaproteobacteria; Pseudomonadales;
Moraxellaceae; Psychrobacter.

ORGANISM ACCESSION VERSION KEYWORDS SOURCE

Wang, F., Wang, P., Chen, M. and Xiao, X.

AUTHORS REFERENCE

φ

ö

Gaps

..

Indels

ä

Mismatches

. 0

```
Conservative
Matches 1097;
                                                                                                                                                     548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1388
                   368
                                      368
                                                         428
                                                                           428
                                                                                                                488
                                                                                                                                   548
                                                                                                                                                                                                               899
                                                                                                                                                                                                                                                    728
                                                                                                                                                                                                                                                                      728
                                                                                                                                                                                                                                                                                         788
                                                                                                                                                                                                                                                                                                           788
                                                                                                                                                                                                                                                                                                                               848
                                                                                                                                                                                                                                                                                                                                                  848
                                                                                                                                                                                                                                                                                                                                                                     908
                                                                                                                                                                                                                                                                                                                                                                                        806
                                                                                                                                                                                                                                                                                                                                                                                                          896
                                                                                                                                                                                                                                                                                                                                                                                                                            968
                                                                                                                                                                                                                                                                                                                                                                                                                                               1028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1388
                                                                                             488
                                                                                                                                                                         608
                                                                                                                                                                                            608
                                                                                                                                                                                                                                 899
                                                                                                                                                                                                                             쉽
                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Бb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                    ò
                               g
                                                       8
                                                                     음 장
                                                                                                            a
                                                                                                                                   ò
                                                                                                                                                 g
                                                                                                                                                                   ò
                                                                                                                                                                                       ద
                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                       1154
                                                                                                                                                                                            1394
                                                                                                                                                                                                               1394
                                                                                                                                                                                                                                  1454
                                                                                                                                                                                                                                                   1454
                                                                                                                                                                                                                                                                                                                                        linear BCT 17-MAY-2004 gene, isolate wp21.
                                                                                     CACACGTGCTACAATGGTAGGTACAGAGGGCAGCTACACACAGCGATGTGATGCGAATCTCA 1274
                                                                                                                                                                                                                                                                                                                                      PSP551101

1473 bp DNA linear BCT 17-MAY-PBychrobacter sp. wp21 partial 16S rRNA gene, isolate wp21.
AJ551101. GI:34525815
16S ribosomal RNA; 16S rRNA gene.
16S ribosomal RNA; 16S rRNA gene.
Psychrobacter sp. wp21
Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
           AGGGCTGCATGCTGTCGTCGTGTCGTGAGATGTTGGGTTAAGTCCCGCAACGA
                                                 GCGCAACCCTTGTCCTTAGTTTACCAGCACTTCGGGTGGGAACTCTAAGGATACTGCCAGT
                                                                                                                 CACACGTGCTACAATGGTAGGTACAGAGGCCAGCTACACAGCGATGTGATGCGAATCTCA
                                                                                                                                                                AAAAGCCTATCGTAGTCCAGATTGGAGTCTGCAACTCGACTCCATGAAGTAGGAATCGCT
                                                                                                                                                                                                        AGTAATCGCGGATCAGAATGCCGCGGTGAATACGTTCCCGGGCCTTGTACACACCGCCG
                                                                                                                                                                                                                                           Wang, F., Wang, P., Chen, M. and Xiao, X.
Isolation of extremophiles with the detection and retrieval of
Shewanella strains in deep-sea sediments from the west Pacific
Extremophiles 8 (2), 165-168 (2004)
                                                                            GACAAACTGGAGGAAGGCGGGGACGACGTCAAGTCATGGCCCTTACGACCAGGGCTA
                                                                                                                                                      AAAAGCCTATCGTAGTCCAGATTGGAGTCTGCAACTCGACTCCATGAAGTAGGAATCGCT
                                                                                                                                                                                            AGTAATCGCGGATCAGAATGCCGCGGTGAATACGTTCCCCGGGCCTTGTACACACCGCCCG
                                                                                                                                                                                                                                  TCACACCATGGGAGTTGATTGCACCAGAAGTGGTTAGCCTTAACTTAGTGAGGGCGATCAC
                                       GCGCAACCCTTGTCCTTAGTTACCAGCACTTCGGGTGGGAACTCTAAGGATACTGCCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Direct Submission
Submitted (22-FEB-2003) Xiao X., Key Lab of Marine Biogenetic Resources, Third Institute of Oceanography, SOA, Daxuelu 178, Xiamen, 361005, CHINA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1473;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sediment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  wp21"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 1047;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                organism="Psychrobacter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /isolation_source="deep
/db_xref="taxon:225864"
/environmental_sample
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .>1473
/gene="16S rRNA"
/product="16S ribosomal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /mol type="genomic DNA"
/isolate="wp21"
                                                                                                                                                                                                                                                                                                                                                                                                                     Moraxellaceae; Psychrobacter.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /gene="16S rRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          68.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (bases 1 to 1473)
                                                                                                                                                                                                                                                                                          1465
                                                                                                                                                                                                                                                                        CACGGTGTGGT 1465
                                                                                                                                                                                                                                                                                 CACGGTGTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15064982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Xiao, X.
                   1035
                                      1095
                                                         1095
                                                                                              1155
                                                                                                                1215
                                                                                                                                   1215
                                                                                                                                                     1275
                                                                                                                                                                         1275
                                                                                                                                                                                            1335
                                                                                                                                                                                                               1335
                                                                                                                                                                                                                                  1395
                                                                                                                                                                                                                                                     1395
                                                                                                                                                                                                                                                                        1455
                                                                                                                                                                                                                                                                                         1455
                                                                            1155
                                                                                                                                                                                                                                                                                                                     RESULT 6
PSPS51101
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           rRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
                                                                                                            8 8 8
                                                                                                                                                                 8 6 8 8
                                66666
                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                       8 8
            셤
ò
```

```
1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCTTACCTGGTCTTGACATACACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATT 1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGCTAACGCAATAAGTAGACCGCCTGGGGGAGTACGCCCGCAAGGTTAAAACTCAAATGA 907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              967
427
                                        427
                                                                                  487
                                                                                                                             487
                                                                                                                                                                       547
                                                                                                                                                                                                               547
                                                                                                                                                                                                                                                       607
                                                                                                                                                                                                                                                                                                  607
                                                                                                                                                                                                                                                                                                                                            667
                                                                                                                                                                                                                                                                                                                                                                                       667
                                                                                                                                                                                                                                                                                                                                                                                                                               727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTGACGGGGCCCGCACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAA 967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGATACAGGTGCTGCATGGCTGTCGTCACGTGTCGTGAGATGGTGGTTAAGTTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGCCCGTCACACCATGGGAGTTGATTGCACCCAGAAGTGGTTAGCCTAACTTAGTGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCAACGAGCGCAACCCTTGTCCTTACTTACCAGCACTTCGGGTGGGAACTCTAAGGATAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AATCTCAAAAAGCCTATCGTAGTCCAGATTGGAGTCTGCAACTCGACTCCATGAAGTAGG
                                                                                                                                                                                                                                                                                           ATTACTGGGCGTAAAGCGAGCGTAGGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGGCATCATACTGACACTGAGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGCTAACGCAATAAGTAGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCTTACCTGGTCTTGACATACACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGCCAGTGACAAACTGGAGGAAGGCGGGGACGACGTCAAGTCATCATGGCCCTTACGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCCAGTGACAAACTGGAGGAAGGCGGGACGACGTCAAGTCATCATGGCCCTTACGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGCTACACACGTGCTACAATGGTACGTACAGAGGCCAGCTACACAGCGATGTGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCGCCCGTCACCACCATGGGAGTTGATTGCACCAGAAGTGGTTAGCCTAACTTAGTGAGGG
                                                                                  TAAGGAGTGAAGAAGACTCTTCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATA
                                                                                                             TAAGCAGTGAAGAAGACTCTTCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATA
                                                                                                                                                                       AGCACCGGCTAACTCTGTGCCAGCGGCGCGCTAATACAGAGGGTGCAAGCGTTAATCGG
                                                                                                                                                                                                                 AGCACCGGCTAACTCTGTGCCAGCAGCCGCGGTAATACAGAGGGTGCAAGCGTTAATCGG
                                                                                                                                                                                                                                                                                                                                                                     TTAACCTGGGAACTGCATCTGAAACTGTTAGGCTAGAGTAGGTGAGGGGAAGTAGAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCAGGTGTAAAGGGTGAAATGCGTAGAAGAATCTGAAGGAATACCGATGGCGAAGGCAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGTAGTCCACGCCGTAAACGATGTCTAGTCGTTGGGTCCCTTGAGGACTTAGTGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGTAGTCCACGCCGTAAACGATGTCTAGTCGTTGGGTCCCTTGAGGACTTAGTGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTGACGGGGGCCCGCACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AATCGCTAGTAATCGCGGATCAGAATGCCGCGGTGAATACGTTCCCGGGCCTTGTACACA
                          AATTACTGGGCGTAAAGCGAGCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGC
                                                                                                                                                                                                                                                                                                                                            TTAACCTGGGAACTGCATCTGAAACTGTTAGGCTAGAGTAGGTGAGAGGGAAGTAGAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                   TCAGGTGTAGCGGTGAAATGCGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTC
  GGGAACCCTGATCCAGCCATGCCGCGTGTGAAGAAGGCCTTTTGGTTGTAAAGCACTT
```

8 g

```
1256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BCT 10-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGTCTTGACATACACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATAC 1034
                                 674
                                                                 656
                                                                                                   734
                                                                                                                 794
                                                                                                                                                                                                     776
                                                                                                                                                                                                                                       854
                                                                                                                                                                                                                                                                       836
                                                                                                                                                                                                                                                                                                         914
                                                                                                                                                                                                                                                                                                                                           896
                                                                                                                                                                                                                                                                                                                                                                           974
                                                                                                                                                                                                                                                                                                                                                                                                            926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 (sites)
Maruyama,A., Honda,D., Yamamoto,H., Kitamura,K. and Higashihara,T.
                                                                                                                                                                                     CATACTGACACTGAGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGTAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AB016055
Psychrobacter pacificensis DNA for 16S rRNA, partial sequence, etrain.NBH P2J3.
AB016055
AB016055.1 GI:6691636
16S ribosomal RNA.
Psychrobacter pacificensis
Bacteria, Proteobacteria, Gammaproteobacteria, Pseudomonadales;
Moravellaceae; Psychrobacter.
                                                                                                                                                                                                                                                          CACGCCGTAAACGATGTCTACTAGTCGTTGGGTCCCTTGAGGGACTTAGTGACGCAGCTAA
                                                                                                                                                                                                                                                                                                                            CGCAATAAGTAGACCGCCTGGGGGGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACG
                                                                                                                                                                                                                                                                                                                                                                            GGGGCCCGCACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACC
                                                                                                                                                                                                                                                                                                                                                                                              897 GGGGCCCGCACAAGCGGTGGAGCATGTGGTTTAATTTCGATGCAAAGAACCTTAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    957 TGGTCTTGACATACACAGAATCTTGTAGAGATACGAGAGTGCCCTTCGGGAATTGTGATAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1077 GCGCAACCCTTGTCCTTAGTTACCAGCACTTCGGGTGGGAACTCTAAGGATACTGCCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1137 GACAAACTGGAGGAGGAGGGGGGACGACGAGTCATCATGGCCCTTACGACCAGGGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1197 CACACGTGCTACAATGGTAGGTAGAGGGCAGCTACACAGGGATGTGATGCGAATCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAAAGCCTATCGTAGTCCAGATTGGAGTCTGCAACTCGACTCCATGAAGTAGGAATCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGCGTAAAGCGAGCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCT
                            GGGAACTGCATCTGAAACTGTTAGGCTAGAGTAGGTGAGAGGGAAGTAGAATTTCAGGTG
                                                                 GGGAACTGCATCTGAAACTGTTAGGCTAGAGTAGGTGAGAGGGAAGTAGAATTTCAGGTG
                                                                                                   TAGCGGTGAAATGCGTAGAGGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCAT
                                                                                                                                                                       CATACTGACACTGAGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGTAGTC
                                                                                                                                                                                                                                       CACGCCGTAAACGATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCAGCTAA
                                                                                                                                                                                                                                                                                                           CGCAATAAGTAGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGTGCTGCATGGCTGGTCGTGTGGTGTGGGTTAAGTCCGCAACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1017 AGGIGCIGCAIGGCIGICGICAGCICGIGICGIGAGAIGIIGGGIIAAGICCCGCAACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACAAACTGGAGGAAGGCGGGACGACGTCAAGTCATGGCCCTTACGACCAGGGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CACACGTGCTACAATGGTAGGTACAGAGGGCAGCTACACAGCGATGTGATGCGAATCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAAAGCCTATCGTAGTCCAGATTGGAGTCTGCAACTCGACTCCATGAAGTAGGAATCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGTAATCGCGGATCAGAATGCCGCGGTGAATACGTTCCCGGGCCTTGTACACACCGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCGCAACCCTTGTCCTTAGTTACCAGCACTTCGGGTGGGAACTCTAAAGATACTGCCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCACACCATGGGAGTTGATTGCACCAG 1403
                                                                597
                                                                                                                                                                                                                                                                         777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1317
537
                                                                                                                                                                                                     717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1335
                                                                                                   675
                                                                                                                                                                                                                                                                                                                                           837
                                                                                                                                                                                                                                                                                                                                                                            915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1395
                                615
                                                                                                                                                                     735
                                                                                                                                                                                                                                       795
                                                                                                                                                                                                                                                                                                           855
                                                                                                                                                                                                                                                                                                                                                                                                                                                975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 8
AB016055
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS
                        상 , 원
                                                                                                                            g
                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                δ
                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                   bp DNA linear BCT 11-DEC-2003
gene for 16S rRNA, partial sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4.76
                                                                                                                                                                                                                                                                                                                                                                                                                    Inagaki,F.
Inagaki,F.
Direct Submission
Submitted (23-OCT-2002) Fumio Inagaki, Japan Marine Science & Submitted (23-OCT-2002) Fumio Inagaki, Japan Marine Science & Technology Center, Subground Animalcule Retrieval (SUGAR) Project, Frontier Research System for Extremophiles; Natsuchima-cho 2-15, Yokosuka 237-0061, Japan (E-mail:inagaki@jamstec.go.jp, Yokosuka 237-061, Japan (E-mail:inagaki@jamstec.go.jp, Tel:81-468-67-9715)
Tel:81-468-67-9687, Fax:81-468-67-9715)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      494
                                                                                                                                                                                                                   Psychrobacter sp. MJYP.15.12
Psychrobacter sp. MJYP.15.12
Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCTACCATGGCGACGATCTGTAGCTGGTCTGAGAGGATGATCAGCCACACGGGGACTGA
                                                                                                                                                                                                                                                                                                       Inagaki, F., Suzuki, M., Takai, K., Oida, H., Sakamoto, T., Aoki, K., Nealson, K.H. and Horikoshi, K.
Microbial Communities Associated with Geological Horizons in Coastal Subseafloor Sediments from the Sea of Okhotsk Appl. Environ. Microbiol. 69 (12), 7224-7235 (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCATTAGACCTTGCGCTATTAGATGAGCCTAAGTCGGATTAGCTAGATGGTGGGGGTAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCATTAGACCTTGCGCTATTAGATGAGCCTAAGTCGGATTAGCTAGTGGGGGGTAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCTACCATGGCGACGATCTGTAGCTGGTCTGAGAGGATGATCAGCCACACGGGACTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACACGGCCCGGACT-CTACGGGAGGCAGCAGTGGGGAATATTGGACAATGGNGGGAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACACGCCCGGACTCCTACGGGAGGCAGCAGTGGGAATATTGGACATATGGGGGAAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGATCCAGCCATGCCGCGTGTGAAGAAGGCCTTTTGGTTGTAAAGCACTTTAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGATCCAGCCATGCCGCGTGTGTGAAGAAGGCCTTTTGGTTGTAAAGCACTTTAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGAAGAAGACTCTTCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATAAGCACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGAAGAAGACTCTTCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATAAGCACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCTAACTCTGTGCCAGCAGCGGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCTAACTCTGTGCCCAGCAGCGGGTAATACAGAGGGTGCAAGCGTTAATCGGAAATACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGCGTAAAAGCGAGCGTAGGTGGCTTGATAAGTCAGATGTGAAAATCCCCGGGCTTAACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ï
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1403;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /isolation_source="subseafloor_sediment"
|db_xref="taxon:211898"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <1. \ . > 1403
/product="16S ribosomal RNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       65.8%; Score 1004; D
99.8%; Pred. No. 0;
ive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Psychrobacter
/mol_type="genomic DNA"
/strain="MJYP.15.12"
                                                                                                                            1403
Psychrobacter sp. MJYP.15.12
AB094456
                                                                                                                                                                                                                                                                         Moraxellaceae, Psychrobacter.
                1465
                                                                                                                                                                                     AB094456.1 GI:27807566
            CGATCACCACGGTGTGGT
                                                                                                                                                                                                                                                                                                                                                                                                            (bases 1 to 1403)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 1224; Conserv
              1448
                                                1448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            555
                                                                                                                                                                ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                            AB094456
LOCUS
                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                           PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rRNA
                                                                                                                                                                                                                                                                                         REFERENCE
                                                                                                                                                                                                                                                                                                           AUTHORS
                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
```

g ઠે g ò g

8

8 6 8 6

ò g 1108

1115

1048 1056

966

936

1168 1175 1228 1235 1295 1348 1355 1408 1415

1288

```
TIGATIGCACCAGAAGIGGIIAGCCIAACTIAGIGAGGCGAICACCACGGIGIGGICGA 1468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AF194191 995 bp DNA linear BCT 21-MAY-2004
Uncultured Psychrobacter a2 16S ribosomal RNA gene, partial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Todorov,J.R., Aller,J.Y. and Chistoserdov,A.Y.
Direct Submission
Submitted (13-0CT-1999) Marine Sciences Research Center, State
University of New York at Stony Brook, Stony Brook, NY 11794-5000, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGTAGGTACAGAGGCAGCTACACAGCGATGTGATGCGAATCTCAAAAAGCCTATCGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1236 TGGTAGGTACAGAGGCCACTACACAGCGATGTGATGCGAATCTCAAAAAGCCTATCGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1356 AGAATGCCGCGGTGAATACGTTCCCGGGCCTTGTACACACCGCCGCCGTCACACCATGGGAG
           CGCCTGGGGAGTACGGCCGCAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCACAAG
                                                                                                                                                                                                                                               1057 TGTCGTCAGCTCGTGTGTGTGGGTTAAGTCCCGCAACGAGCGC-ANCCTTGTC
                                                                                                                                                                                                                                                                                                                        CTTAGTTACCCAGCACTTCGGGTGGGAACTCNAAGGATACTGCCAGTGACAACTGGAGGA
                                                                                                                                                                                                                                                                                                                                                                             AGGCGGGGACGACGTCAAGTCATGGCCCTTACGACCAGGGCTACACACGTGCTACAA
                                                                                                                                                                                                                                                                                                                                                                                                1296 GTCCAGATTGGAGTCTGCAACTCGACTCCATGAAGTAGGAATCGCTAGTAATCGCGGATC
                                                                                                           937 CGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACATAC
                                                                                                                                               ACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTGCATGGC
                                                                                                                                                                                Acadaarcrigradadaracdadadidecrirodddaarrigidaracadgrigcrigcarddc
                                                                                                                                                                                                                           TGTCGTCAGCTCGTGTCGTGAGATGTTGGGTTAAGTCCCGCAACGAGCGCAACCCTTGTC
                                                                                                                                                                                                                                                                                                  CTTAGTTACCAGCACTTCGGGTGGGAACTCTAAGGATACTGCCAGTGACAAACTGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTCCAGATTGGAGTCTGCAACTCCATGAAGTAGGAATCGCTAGTAATCGCGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Moraxellaceae; Psychrobacter; environmental samples.

1 (bases 1 to 995)
Todorov, J.R., Chistoserdov, A.Y. and Aller, J.Y.
Molecular analysis of microbial communities in mobile deltaic of Southeastern Papua New Guinea
FEMS Microbiol. Ecol. 33 (2), 147-155 (2000)
                                                                        CGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
1. .995
/organism="uncultured Psychrobacter a2"
/mol type="genomic DNA"
/db_xref="taxon:126515"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGACTGGGGTGAAGTCGTAACAAGGTAGCCGTAGGG 1511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGACTGGGGTGAAGTCGTAACAAGGTAGCCGTAGGG 1504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     uncultured Psychrobacter a2
uncultured Psychrobacter a2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AF194191.1 GI:8101556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sequence.
AF194191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1469
                                                                        929
                                                                                                                                                 989
                                                                                                                                                                                      997
                                                                                                                                                                                                                           1049
                                                                                                                                                                                                                                                                                                  1109
                                                                                                                                                                                                                                                                                                                                       1116
                                                                                                                                                                                                                                                                                                                                                                             1169
                                                                                                                                                                                                                                                                                                                                                                                                              1176
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1476
                                   877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 9
AF194191
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                      g
                                                                    à
                                                                                                                                                 à
                                                                                                                                                                            셤
                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         원
                                                                                                                           Dases 1 to 1531)
Maruyama, A. and Kitamura, K.
Maruyama, A. and Kitamura, K.
Submitted Cor-UUL-1998) Akihiko Maruyama, National Institute of
Bioscience and Human-Technology, Department of Applied and
Browizonmental Microbiology; 1-1 Higashi, Tsukuba, Ibaraki 305-8566,
Japan (E-mail.maruyama@nibh.go.jp, Tel:+81-298-54-6062,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACGATCTGTAGCTGGTCTGAGAGGATGATCAGCCACCGGGACTGAGACACGGCCGGGA 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGCTATTAGATGAGCCTAAGTCGGATTAGCTAGATGGTGGGGTAAAGGCCTACCATGGCG 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCACAAG 928
                 the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATAAGCACCGGCTAACTCTGTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCTCGAAAGCGTGGCTAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACGA
rnylogenetic analysis of psychrophilic bacteria isolated from t Japan Trench, including a description of the deep-sea species Psychrobacter pacificensis sp. nov Int. J. Syst. Evol. Microbiol. 50 Pt-2, 835-846 (2000) 20222194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCTACGGGAGGCAGCAGTGGGGAATATTGGACAATGGNGGGAACCCTGATCCAGCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCGCGTGTGTGAAAGACCTTTTGGTTGTAAAGCACTTTAAGCAGTGAAGAAGAAGTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGCAGCCGCGGTAATACNGAGGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ceracergecrrearaacreacargreaarcecegecrraaccreecaacrecarcre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAACTGTTAGGCTAGAGTGAGAGGGAAGTAGAATTTCAGGTGTAGGCGGTGAAATGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGCTATTAGATGAGCCTAAGTCGGATTAGCTAGATGGTGGGGTAAAAGGCCTACCATGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACGATCTGTAGCTGGTCTGAGAGGATGATCAGCCACACACGGGACTGAGACACGGCCCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCGCGTGTGTGAAGAAGGCCTTTTGGTTGTAAAGCACTTTTAAGCAGTGAAGAAGACTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCAGCCGCGGTAATACAGAGGTGCAAGCGTTAATCGGAATTACTGGGCGTAAAGCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCTGGGAACTGCATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAACTGTTAGGCTAGAGTAGGTGAGAGGGAAGTAGAATTTCAGGTGTAGCGGTGAAATGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCATCATACTGACACTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCAGCTAACGCAATAAGTAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             reretactactregerecerreagaetragegeetragegerecagetragegerage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1531;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                    pacificensis"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
                                                                                                                                                                                                                                                                                                                                                                                                                  /product="16S ribosomal RNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 971; 1
Pred. No. 0;

    .1531
    /organism="Psychrobacter/mol_type="genomic DNA"
/strain="NIBH P2J3"

                                                                                                                                                                                                                                                                                                                                                                           /db_xref="taxon:112002"
                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       63.6%;
99.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Simi
Matches 1291;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    869
                                                                                                                                                                                                                                                                                                        source
                                                                    JOURNAL
MEDLINE
PUBMED
                                                                                                                                               AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                  rrna
                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                  FEATURES
                   TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
```

중 점

엄 ò ద

8

QQ

6 B 6

요 à

ò

8 &

d

8 8 8

පු ò qq

8.

4

ŝ g ò ద ઠે 20 ઠે a ઠે g ઠે 유 ò g જે 셤 જે 8 ò g ò g ò 유 ò g ð g ò g ઠે

```
1530 bp DNA linear BCT 10-MAY-2000
Psychrobacter pacificensis DNA for 16S rRNA, partial sequence,
strain:NIBH P2K17.
                                                                                                                                                                                                                                                                                                                                                           Direct Submission
Submitted (07-JUL-1998) Akihiko Maruyama, National Institute of Bioscience and Human-Technology, Department of Applied and Environmental Microbiology, 1-1 Higashi, Tsukuba, Ibaraki 305-8566, Japan (E-mail:maruyama@nibh.go.jp, Tel:+81-298-54-662,
                                                                                                                                                                                                                                             Asruyama, A., Honda, D., Yamamoto, H., Kitamura, K. and Higashihara, T. Phylogenetic analysis of psychrophilic bacteria isolated from the Japan Trench, including a description of the deep-sea species sychrobacter pacificensis sp. nov
Int. J. Syst. Evol. Microbiol. 50 Pt 2, 815-846 (2000)
                                                                                                                            ABO16058.1 GI:6691639
li6s ribosomal RNA.
Psychrobacter pacificensis
Psychrobacter pacificensis
Psychrobacter pacificensis
Bacteria: Proteobacteria; Gammaproteobacteria; Pseudomonadales;
Moraxellaceae; Psychrobacter.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGAACCCTGATCCAGCCATGCCGCGTGTGTGAAGAAGGAGCCTTTTGGTTGTAAAGCACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGGCATCATACTGACACTGAGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       788 GGTAGTCCACGCCGTAAACGATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGCACCGGCTAACTCTGTGCCAGCAGCGGGTAATACAGAGGGTGCAAGCGTTAATCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGGCATCATACTGACACTGAGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                430 TAAGCAGTGAAGAAGACTCTTCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTAACCTGGGAACTGCATCTGAAACTGTTAGGCTAGAGTAGGTGAGAGGGAAGTAGAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TAAGCAGTGAAGAAGACTCTTCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>AGCACCGGCTAACTCTGTGCCAGCAGCCGCGGTAATACAGAGGGTGCAAGCGTTAATCGG</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AATTACTGGGCGTAAAGCGAGCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTAACCTGGGAACTGCATCTGAAACTGTTAGGCTAGAGTAGGTGAGAGGGAAGTAGAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGAACCCTGATCCAGCCATGCCGCGTGTGAAGAAGGCCCTTTTGGTTGTAAAGCACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1; Length 1530;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        pacificensis'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <1. \. >1530
/product="168 ribosomal RNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 856; DB
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
1. 1530
/organism="Psychrobacter pa/mol_type="Genomic DNA"
/strain="NIBH P2K17"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /db_xref="taxon:112002"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             56.1%;
99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 56.1
Best Local Similarity 99.8
Matches 1096; Conservative
                                                                                                                 AB016058
                                                                                                                                                                                                                                                                                                                                                        10758895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     670
                               RESULT 10
AB016058
LOCUS
DEFINITION
                                                                                                                               VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                 REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                   JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rrna
                                                                                                                 ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1412
                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGATTGGAGTCTGCAACTCGACGCAGGAAGTAGGAATCGCTAGTAATCGCGGATCAGAA 1352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      849
                                                                                                                                                                  572
                                                                                                                                                                                                                                   632
                                                                                                                                                                                                                                                                  129
                                                                                                                                                                                                                                                                                                     692
                                                                                                                                                                                                                                                                                                                                      189
                                                                                                                                                                                                                                                                                                                                                                      752
                                                                                                                                                                                                                                                                                                                                                                                                       249
                                                                                                                                                                                                                                                                                                                                                                                                                                        812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   789
                                                                                                                                                                                                 69
                                                                                                                                                                                   573 GGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCTGGGAACTGCATCTGAAAC
                                                                                                                                                                                                                                                    GGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACCTGGGAACTGCATCTGAAAC
                                                                                                                                                                                                                                                                                                   TGTTAGGCTAGAGTGAGGGGAAGTAGAATTTCAGGTGTAGCGTGAAATGCGTAG
                                                                                                                                                                                                                                                                                                                   AGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCATACTGACACTGAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             250 CGAAAGCGTGGGTAGCAAACAGGATTAGATACCTGGTAGTCCACGCCGTAAACGATGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCAGCTAACGCAATAAGTAGACCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          370 TGGGGAGTACGGCCGCACAAGGTTAAAACTCAAATGAATTGACGGGGCCCCGCACAAGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACATACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATACAGGTGCTGCATGGCTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AATCTTGTAGAGAGAGAGAGGCCTTCGGGAATTGTGATACAGGTGCTGCATGGCTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTCAGCTCGTGTCGTGAGATGTTGGTTAAGTCCCGCAACGAGCGCAACCCTTGTCCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTTACCAGCACTTCGGGTGGGAACTCTAAGGATACTGCCAGTGACAAACTGGAGGAAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGTACAGAGGCCAGCTACACAGCGATGTGATGCGAATCTCAAAAAGCCTATCGTAGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGATTGGAGTCTGCAACTCGACTCCATGAAGTAGGAATCGCTAGTAATCGCGGATCAGAA
                                                                                                                                                                AGATCTGAAGGAATACCGATGGCGAAGGCACCTTCCTGGCATCATACTGACCTTGAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                        CGAAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGTAGTCCACGCCGTAAACGATGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGGGGGTACGCCCCCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCCGCACAAGCGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACATACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCAGCTCGTGTCGTGAGATGTTGGGTTAAGTCCCGCAACGAGCGCAACCTTGTCCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTTACCAGCACTTCGGGTGGGGAACTCTAAGGATACTGCCAGTGACAAACTGGAGGAAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGGACGACGTCAAGTCATCATGGCCCTTACGACCAGGGCTACACGTGCTACAATGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGTACAGAGGCAGCTACACAGCGATGTGATGCGAATCTCAAAAAGCCTATCGTAGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGCCGCGGTGAATACGTTCCCGGGCCTTGTACACACCGCCCGTCACACCATGGGAGTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTGCACCAGAAGTGGTTAGCCTAACTTAGTGAGGGCGATCACCACGGTGTGGT 1465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       962
                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 995;
                                                                                                                                 Indels
                                                                                                                                 ;
0
                                                                                                DB 1;
0;
                               <1. ,>995
/product="16S ribosomal RNA"
                                                                                              62.5%; Score 953; DB
llarity 100.0%; Pred. No. 0;
Conservative 0; Mismatches
/clone="a2"
/environmental_sample
                                                                                                               Similarity
                                                                                                               Best Local Simi
Matches 953;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       910
                                                                                                                                                                                                                                                                70
                                                                                                                                                                                                                                                                                                                                   130
                                                                                                                                                                                                                                                                                                                                                                                                     190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1353
                                                                                                                                                                                                                                                                                                   633
                                                                                                                                                                                                                                                                                                                                                                      693
                                                                                                                                                                                                                                                                                                                                                                                                                                      753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1413
                                                                                                Query Match
                                                              ORIGIN
```

489 487

549

607 609 667 699 727 728 787

547

788

ö

Gaps

. 0

8 6 8

ò

8 & 8

δ 6

QQ

8 g ò g ठे 셤

õ

442 427

487

502 547 562 607 622 667 682 727 742 787 802

us-09-979-558a-1.olig.rge

∂

8 6 8

ò

```
ABULDUS4 10-MAY-2000 PRA linear BCT 10-MAY-2000 PSychrobacter pacificensis DNA for 16S rRNA, partial sequence, strain:NIBH P2J2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   863 CAGCTAACGCAATAAGTAGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGA 922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGCTAACGCAATAAGTAGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGA 907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTGACGGGGCCCGCACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGAGAA 967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTGACGGGGCCCGCACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAA 982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AB016054
AB016054.1 GI:6691635
16S ribosomal RNA.
Psychrobacter pacificensis
Psychrobacter pacificensis
Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGTAGTCCACGCCGTAAACGATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAAGCAGTGAAGAAGACTCTTCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                             TAAGCAGTGAAGAAGACTCTTCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AATTACTGGGCGTAAAGCGAGCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTAACCTGGGAACTGCATCTGAAACTGTTAGGCTAGAGTAGGGTGAGGAGGGAAGTAGAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCAGGTGTAGCGGTGAAATGCGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTTACCTGGTCTTGACATACACAGAATCTTGTAGAGATACGAGGGGGGCGTTCGG 1022
                                                                                                                                                                                                                                                                                                                                                            GGGAACCCTGATCCAGCCATGCCGCGTGTGTGAAGAAGGCCTTTTTGGTTGTAAAGCACTT
                                                                                                                                                                                                                                                                                                                                                                                                   GGGAACCCTGATCCAGCCATGCCGCGTGTGTGAAGAGGCCTTTTGGTTGTAAAGCACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGCACCGGCTAACTCTGTGCCAGCAGCCGCGGTAATACAGAGGGTGCAAGCGTTAATCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCACCGGCTAACTCTGTGCCAGCCGCGGCTAATACAGAGGGTGCAAGCGTTAATCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AATTACTGGGCGTAAAGCGAGCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTAACCTGGGAACTGCATCTGAAACTGTTAGGCTAGAGTAGGTGAGAGGGAAGTAGAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCAGGTGTAGCGGTGAAATGCGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGGCATCATACTGACACTGAGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGTAGTCCACGCCGTAAACGATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACG
                                                                                                                                                                                                                                                                          Query Match 42.9%; Score 655; DB 1; Length 1684; Best Local Similarity 100.0%; Pred. No. 0; Matches 655; Conservative 0; Mismatches 0; Indels
                                                                   sediment"
                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                    <1. .>1684
/gene="16S rRNA"
/product="16S ribosomal RNA"
                                                                     sea
    /organism="Psychrobacter
/mol_type="genomic DNA"
/isolate="wp30"
                                                              /isolation_source="deep
/db_xref="taxon:225865"
/environmental_sample
                                                                                                                             1. .1684
/gene="16S rRNA"
                                                                                                                                                                                                                                                                                                                                                            368
                                                                                                                                                                                                                                                                                                                                                                                                   383
                                                                                                                                                                                                                                                                                                                                                                                                                                               428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 12
AB016054
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                  gene
                                                                                                                                                                      rRNA
                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PSP551107 1684 bp DNA linear BCT 17-MAY-2004
Psychrobacter sp. wp30 partial 16S rRNA gene, isolate wp30.
AJ551107
AJ551107
AJ551107
16 :134525821
16S ribosomal RNA; 16S rRNA gene.
Psychrobacter sp. wp30
Psychrobacter sp. wp30
Bacteria, Proteobacteria, Gammaproteobacteria; Pseudomonadales;
Moraxellaceae; Psychrobacter.
                                                                                                                                                                                                                                 CCTTACCTGGTCTTGACATACACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATT 1027
                                                                                                                                                                                                                                                                          1027
                                                                                                                                                                                                                                                                                                                                                                                                      1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1148 TGCCAGTGACAAACTGGAGGAGGCGGGACGACGTCAAGTCATCATGGCCCTTACGACC 1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGGCTACACACGTGCTACAATGGTAGGTACAGAGGCAGCTACACAGGGGATGTGATGCG 1267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCGCCCGTCACACCATGGGAGTTGCACCAGAAGTGGTTAGCCTAACTTAGTGAGGG 1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1447
                                                                                                                                                                                                                                                                                                                   GTGATACAGGTGCTGCATGGCTGTCGTCGTGTGTGAGATGTTGGGTTAAGTCCC 1087
                                                                                                                                                                                                                                                                                                                                                            1088 GCAACGAGCGCAACCCTTGTCCTTAGTTACCAGCACTTCGGGTGGGAACTCTAAGGATAC 1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1208 AGGGCTACACACGTGCTACAATGGTAGGTACAGAGGGCAGCTACACACAGATGTGATGCG 1267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AATCTCAAAAAGCCTATCGTAGTCCAGATTGGAGTCTGCAACTCGACTCCATGAAGTAGG 1327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1328 AATCGCTAGTAATCGCGGATCAGAATGCCGCGGTGAATACGTTCCCGGGCCCTTGTACACA 1387
                                                                                           CAGCTAACGCAATAAGTAGACCGCCTGGGGGGTACGGCCGCAAGGTTAAAACTCAAATGA 908
                                                                                                                                                                             ATTGACGGGGCCCCCCACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAA 968
                          848
                                                                                                                                                   ATTGACGGGGCCCGCACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAA 967
                                                              CAGCTAACGCAATAAGTAGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGA 907
TGCCAGTGACAAACTGGAGGAGGCGGGGACGACGTCAAGTCATCATGGCCCTTACGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AATCTCAAAAAAGCCTATCGTAGTCCAGATTGGAGTCTGCAACTCGACTCCATGAAGTAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1328 AATCGCTAGTAATCGCGGATCAGAATGCCGCGGGGGAATACGTTCCCGGGCCTTGTACACA
                                                                                                                                                                                                                                                                          cerraceregrerreacaracacaaarerreracagaraceagagaere-erregegaarr
                                                                                                                                                                                                                                                                                                                                                                                                      GCAACGAGCGCAACCCTTGTCCTTAGTTACCAGCACTTCGGGTGGGAACTCTAAGGATAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cceccercacaccareegagrigariecaccagaagreerragecraacriagreage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Wang, F., Wang, P., Chen, M. and Xiao, X. Isolation of extremophiles with the detection and retrieval of Shewanella strains in deep-sea sediments from the west Pacific Extremophiles 8 (2), 165-168 (2004)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Marine Biogenetic
SOA, Daxuelu 178,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Direct Submission
Submitted (22-FEB-2003) Xiao X., Key Lab of
Resources, Third Institute of Oceanography,
Xiamen, 361005, CHINA
Location/Qualifiers
1. .1684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGATCACCACGGTGTGGT 1465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGATCACCACGGTGTGGT 1465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15064982
2 (bases 1 to 1684)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Xiao, X.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1448
                       789
                                                              848
                                                                                                                                                   806
                                                                                                                                                                                          606
                                                                                                                                                                                                                                   896
                                                                                                                                                                                                                                                                          696
                                                                                                                                                                                                                                                                                                                   1028
                                                                                                                                                                                                                                                                                                                                                                                                      1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1448
                                                                                                        849
```

ACCESSION VERSION KEYWORDS SOURCE ORGANISM

REFERENCE AUTHORS TITLE

JOURNAL PUBMED

DEFINITION

RESULT 11 PSP551107

source

FEATURES

REFERENCE AUTHORS TITLE JOURNAL

BCT 31-JAN-2003

```
Unpublished
2 (Dases 1 to 1425)
2 Tangy R. J. and Cooney, J. J.
Direct Submission
Submitted (23-APR-2002) Environmental, Coastal and Ocean Sciences,
University of Massachusetts Boston, 100 Morrissey Blvd., Boston, MA
                                  CAGGTGCTGCATGCCTGTCGTCAGCTCGTGTCGTGAGATGTTGGGTTAAGTCCCGCAACG 1093
                                                                      1034 CAGGTGCTGCATGGCTGTCGTCAGCTCGTGTGAGATGTTGGGTTAAGTCCCGCAACG 1093
974 CCGGTCTTGACATACACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATA 1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1325 AACCCTGATCCAGCCATGCCGCGTGTGTGTAAAAAGGCCTTTTGGTTGTAAAGCACTTTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         505 TACTGGGCGTAAAGCGAGCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     625 GGTGTAGCGGTGAAATGCGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       385 GCAGTGAAGAGTCTTCGGTTAATACCCGGAGACGATGACATTAGCTGCAGAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCGGCTAACTCTGTGCCAGCAGCGGGGTAATACAGAGGGTGCAAGCGTTAATCGGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                445 ACCGGCTAACTCTGTGCCAGCAGCCGCGGTAATACAGAGGGTGCAAGCGTTAATCGGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             565 ACCTGGGAACTGCATCTGAAACTGTTAGGCTAGAGTAGGTGAGAGGGAAGTAGAATTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGTGTAGCGGTGAAATGCGTAGAGTCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             371 AACCCTGATCCAGCCATGCCGCGTGTGTGAAGAGGCCTTTTGGTTGTAAAGCACTTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  431 GCAGTGAAGAAGACTCTTCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TACTGGGCGTAAAGCGAGCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCTGGGAACTGCATCTGAAACTGTTAGGCTAGAGTGAGGGGAAGTAGAATTTCA
                                                                                                                                                                                                                                                                                                                                                                                Tang, R.J. and Cooney, J.J.
Tributyltin-resistant, biofilm-forming bacteria isolated from
                                                                                                                                                                                                                          AF505739 1425 bp DNA linear BCT 31
Bacterium UMB10E 16S ribosomal RNA gene, partial sequence.
AF505739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /isolation_source="Boston Harbor surface water"
/db_xref="taxon.206003"
/environmental_sample
/country="USA: Massachusetts"
/note="tributyltin-resistant strain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1425;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
37.1%; Score 566; DB 1;
Best Local Similarity 99.8%; Pred. No. 0;
Matches 616; Conservative 0; Mismatches 1;

    .1425
    Organism="bacterium UMB10E"
/mol_type="genomic DNA"
/strain="UMB10E"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <1. .>1425
/product="16S ribosomal RNA"
                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                         AF505739.1 GI:28173016
                                                                                                                                                                                                                                                                                                                                                                                                                                         Boston Harbor, MA
                                                                                                                                                                                                                                                                                                                              bacterium UMB10E
bacterium UMB10E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        02125-3393, USA
                                  1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    671
                                                                                                                                                                                                                                                   DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                           KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               rRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                 AF505739
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
                                                               g
                                                                                                                                    g
                                ò
                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>.</u> අ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                       Maruyama, A. and Kitamura, K.
Direct Submission

Bubmitted (07-UUL-1998) Akihiko Maruyama, National Institute of
Bioscience and Human-Technology, Department of Applied and
Bioscience in Microbiology, 1-1 Higashi, Tsukuba, Ibaraki 305-8566,
Japan (E-mail:maruyama@nibh.go.jp, Tel:+81-298-54-6062,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGGTCTTGACATACACAGAATCTTGTAGAGATACGAGAGTGCCTTCGGGAATTGTGATA 1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACGCAATAAAGTAGACCGCCTGGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGAC 913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              973
             1 (sites)
Maruyama,A., Honda,D., Yamamoto,H., Kitamura,K. and Higashihara,T.
Phylogenetic analysis of psychrophilic bacteria isolated from the
Japan Trench, including a description of the deep-sea species
Psychrobacter pacificensis sp. nov
Int. J. Syst. Evol. Microbiol. 50 Pt 2, 835-846 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCACGCCGTAAACGATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGATGCAGCTA 853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACGCAATAAGTAGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGAC 913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTAGCGGTGAAATGCGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCATACTGACACTGAGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATAACCTGGTAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGGCCCCCACAAGCGGTGGATGTGGTTTAATTCGATGCAACGCGAAGAACCTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGGCCCCCCACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTGATCCAGCCATGCCGCGTGTGAAGAGGCCTTTTGGTTGTAAAGCACTTTAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTGAAGAAGACTCTTCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATAAGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGAAGAAGACTCTTCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATAAGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCTAACTCTGTGCCAGCAGCGGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCTAACTCTGTGCCAGCAGCCGCGGTAATACAGAGGGTGCAAGCGTTAATCGGAATTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGGCGTAAAGCGAGCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGGCGTAAAGCGAGCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGGAACTGCATCTGAAACTGTTAGGCTAGAGTAGGTGAGAGGGAAGTAGAATTTCAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        reseaactecarcigaaacterragecragagragereagagggaaggaartreager
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTAGCGGTGAAATGCGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCATACTGACACTGAGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGTAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCACGCCGTAAACGATGTCTACTAGTCGTTGGGTCCCTTGAGGGACTTAGTGACGCAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1536;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2; Indels

    1536
        Acgainsm="Psychrobacter pacificensis"
(Acgainsm="Psychrobacter pacificensis")
(MOL type="genomic DNA")
        /strain="NIBH P2J2"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                  <1. .>1536
/product="16S ribosomal RNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 42.3%; Score 646; Best Local Similarity 99.7%; Pred. No. 0 Matches 746; Conservative 0; Mismatch
                                                                                                                                                                                                                                                                                                                                                                                                     /db_xref="taxon:112002"
Moraxellaceae; Psychrobacter.
                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     734
                                                                                                                                                                                                                                                                                                                                Bource
             REFERENCE
AUTHORS
TITLE
                                                                                                                                        PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                     JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                      rRNA
                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        중 염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

ö

Gaps

ö

384

430

444

550 504 610 564 670 624 730

490

647

730 707 790 767

910

887

970

670

610

587

6666

8 6

a ò a

ò

```
AF468383 1445 bp DNA linear BCT 06-NOV-2003
Arctic sea ice bacterium ARK10009 16S ribosomal RNA gene, partial
sequence.
                                                                                                                                                                                                                                                                                                                                   AGTCCACGCCGTAAACGATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCAG 850
                                                                                                                                                                                                                                                                                                                                                         888 GACGGGGCCCCACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCT 947
468 ACCGGCTAACTCTGTGCCAGCAGCCGCGGTAATACAGAGGGTGCAAGCGTTAATCGGAAT 527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Diversity and Structure of Bacterial Communities in Arctic versus Antarctic Pack Ice
Appl. Environ. Microbiol. 69 (11), 6610-6619 (2003)
14602620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Arctic sea ice bacterium ARK10009
Arctic sea ice bacterium ARK10009
Bacteria, Proteobacteria, Gammaproteobacteria; Pseudomonadales;
Moraxellaceae; Psychrobacter.

1 (bases 1 to 1445)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Brinkmeyer, R., Knittel, K., Jurgens, J., Weyland, H., Amann, R. and
                                                                                                                                  ACCTGGGAACTGCATCTGAAACTGTTAGGCTAGAGTAGGTGAGAGGGGAAGTAGAATTTCA
                                                                                                                                                                                                          GGTGTAGCGGTGAAATGCGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTG
                                                            GGTGTAGCGGTGAATGCGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTG
                                                                                                                                                                                                                                                                                   828 CTAACGCAATAAGTAGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATT
                                                                                                           611 ACCTGGGAACTGCATCTGAAACTGTTAGGCTAGAGTAGGTGAGAGGGAAGTAGAATTTCA
                                                                                                                                                                                                                                                             GCATCATACTGACACTGAGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                CTAACGCAATAAGTAGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACGGGGGCCCGCACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Αщ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Direct Submission
Submitted (15-JAN-2002) Pelagic Oceanography,
Alfred-Wegener-Institut fuer Polar und Meeresforschung,
Handelshafen 12, Bremerhaven D-27570, Germany
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1. .1445
/organism="Arctic sea ice bacterium ARK10009"
/mol_type="genomic DNA"
/isolate="ARK10009"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 1; Length 1445;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /isolation_source="Arctic sea ice"
/db_xref="taxon:196809"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <1. .>1445
/product="168 ribosomal RNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 566; I
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Brinkmeyer, R. and Helmke, E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AF468383.1 GI:28269031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                971 TACCTGGTCTTGACATA 987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      37.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 (bases 1 to 1445)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AF468383
                                                                                                                                                                                                                        648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     948
                                     551
                                                                                                                                                588
                                                                                                                                                                                   671
                                                                                                                                                                                                                                                             731
                                                                                                                                                                                                                                                                                                                                     791
                                                                                                                                                                                                                                                                                                                                                                                                                851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 15
AF468383
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rrna
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                Q
                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                     g
                       6 6
                                                                                                         ò
                                                                                                                                      a
                                                                                                                                                                           ò
                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                         Uncountry of Arctic sea ice bacterium clone ARKKVI/2-136 16S
AY165598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                           850
                                                                                                                                                                   910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       371 AACCCTGATCCAGCCATGCCGCGTGTGAAGAAGGCCTTTTGGTTGTAAAGCACTTTAA 430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCGGCTAACTCTGTGCCAGCAGCGGGTAATACAGAGGGTGCAAGCGTTAATCGGAAT 550
                                                    744
                                                                                                                              745 AGTCCACGCCGTAAACGATGTCTACTAGTCGTTGGGGTCCCTTGAGGACTTAGTGACGCAG 804
                                                                                                                                                                                         CTAACGCAATAAGTAGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATT 864
                                                                                                                                                                                                                                            GACGGGGGCCCGCACAAGCGGTGGAGCATGTGGTTTTAATTCGATGCAACGCGAAGAACTT 970
                                                                                                                                                                                                                                                               GACGGGGGCCCGCACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGAAAGAACCT 924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          348 AACCCTGATCCAGCCATGCCGCGTGTGAAGAGGCCTTTTGGTTGTAAAGCACTTTAA 407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCAGTGAAGAAGACTCTTCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATAAGC 490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCAGTGAAGAAGACTCTTCGGTTAATACCCGGAGACGATGACATTAGCTGCAGAATAAGC 467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="uncultured Arctic sea ice bacterium"
|mol_trype="genomic DNA"
|isolation_source="Arctic pack ice, northern Fram Strait,
Arctic Ocean" —
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Diversity and Structure of Bacterial Communities in Arctic versus Antarctic Pack Ice Appl. Environ. Microbiol. 69 (11), 6610-6619 (2003) 14602620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Helmke, E. Direct Submission Sibrect Submission Submitted (17-OCT-2002) Alfred Wegener Institute for Polar and Marine Research, Am Handelshafen 12, Bremerhaven D-27570, Germany
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 (bases 1 to 1441)
Brinkmeyer,R., Knittel,K., Juergens,J., Weyland,H., Amann,R. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bacteria; environmental samples.

1 (bases 1 to 1441)
Brinkmeyer, R., Knittel, K., Jurgens, J., Weyland, H., Amann, R. and Helmke, E.
                                                                                             GACGCAG
                                                                                                                                                                   CTAACGCAATAAGTAGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATT
                                                  685 GCATCATACTGACACTGAGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 1; Length 1441;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <1. .>1441
/product="16S ribosomal RNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             37.1%; Score 566; DB
99.8%; Pred. No. 0;
tive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              uncultured Arctic sea ice bacterium uncultured Arctic sea ice bacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /db xref="taxon:219049"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /clone="ARKXVI/2-136"
/environmental_sample
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                         TACCTGGTCTTGACATA 941
                                                                                                                                                                                                                                                                                                                    TACCTGGTCTTGACATA 987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AY165598.1 GI:28624892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                616;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S:
Matches 616
                                                                                                                                                                                                                                                                                                                    971
                                                                                                                                                                                                                                                                                                                                                       925
                                                                                                                                                                                                       805
                                                                                                                                                                                                                                            911
                                                                                                                                                                                                                                                                               865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 431
                                                                                           791
                                                                                                                                                                 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 14
AY165598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
```

셤 ò g

े

à

0,	430	388	490	448	550	208	610	268	670	628	730	688	190	748	850	808	910	898	970	928		
Gaps	TTTAA	TTTAA	TAAGC	TAAGC	GGAAT	GGAAT	GCTTA	GCTTA	TTTCA	TTTCA	TCCTG	TCCTG	CTGGT	CTGGT	CGCAG	CGCAG	GAATT	GAATT	AACCT	AACCT		
. 0	AGCAC	AGCAC	CAGAA	CAGAA	TAATC	TAATC	- - - - - - -	 	TAGAA	TAGAA	CAGCT	CAGCT	ATACC	ATACC	AGTGA	AGTGA	CAAAT	CAAAT	CGAAG	CGAAG		
18	TGTAA	TGTAA	AGCTG	AGCTG	AGCGT	AGCGT	AAATC	AAATC	GGAAG	GGAAG	GAAGG	GAAGG	ATTAG	ATTAG	GACTT	GACTT	AAACT	AAACT	TTCGATGCAACGCGAAGAACCT	CAACG		
Indels	TTGGT	TTGGT	ACATT	ACATT	GTGCA	- 5 - 5 - 5 - 5 - 5	ATGTG	ATGTG	GAGAG	GAGAG	ATGGC	ATGGC	ACAGG	ACAGG	TTGAG	TTGAG	GGTTA	GGTTA	CGATG	CGATG		
۲;	SCCT	GCCTT	ACGATO	ACGATG	SAGAGG	CAGAGG	AGTCAG	AGTCAG	STAGGI	JI I I I I I	TACCG	ATACCG	FAGCAR	FAGCAN	GTCCC	GTCCC	CCCCAA	CGCAA	TTAATI	LTAATI		
ches	AACCCTGATCCAGCCATGCCGCGTGTGTGAAGAAGGCCTTTTTGGTTGTAAAGCACTTTAA	aaccctgatccagccatgcggcgtgtgaagaagaggccttttggttgtaaagcacttta	GCAGTGAAGAAGACTCTTCGGTTAATACCCGGGGACGATGACATTAGCTGCAGAATAAGC	GCAGTGAAGAAGACTCTTCGGTTAATACCCGGAGACGATGACATTAGCTGCAGAATAAGC	ACCGGCTAACTCTGTGCCAGCGGCGGGTAATACAGAGGGTGCAAGCGTTAATCGGAAT	ACCGGCTAACTCTGTGCCAGCAGCCGCGTAATACAGAGGGTGCAAGCGTTAATCGGAAT	TACTGGGCGTAAAGCGAGCGTGGTGGTGAAAATCCCCGGGCTTA	TACTGGGCGTAAAGCGAGCGTAGGTGGCTTGATAAGTCAGATGTGAAATCCCCGGGCTTA	ACCTGGGAACTGCATCTGAAACTGTTAGGCTAGAGTAGGTGAGGAGAGAGA		GGTGTAGCGGTGAAATGCGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTG	GGTGTAGCGGTGAAATGCGTAGAGATCTGAAGGAATACCGATGGCGAAGGCAGCTTCCTG	GCATCATACTGACACTGGAGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATACCCTGGT	GCATCATACTGACACTGAGGCTCGAAAGCGTGGGTAGCAAACAGGATTAGATAACCCTGGT	AGTCCACGCCGTAAACGATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGAG	AGTCCACGCCGTAAACGATGTCTACTAGTCGTTGGGTCCCTTGAGGACTTAGTGACGCAG	CTAACGCAATAAGTAGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATT	CTAACGCAATAAGTAGACCGCCTGGGGAGTACGGCCGCCAAGGTTAAAACTCAAATGAATT	GTGGTT	GACGGGGCCCGCACAAGCGGTGGAGCATGTGTTTAATTCGATGCAAGGAACCT		
Mismatches	GTGTG	GTGTG	ATACC	ATACC	55555		TGGCT	TGGCT	TTAGG	TTAGG	ATCTG	ATCTG	AAAGC	AAAGC	CTAGT	CTAGT	GGGAG	GGGAG	GGAGCATGTGGT	AGCAT		
, o	11111	cecen	GGTTA	GGTT	AGCAGG	AGCAGO	GTAGG	GTAG	AAACTG	AAACTO	STAGAC	STAGAC	SGCTCC	360106	GTCTA	GTCT	GCCTC	GCCTG	366760	366166	987	945
ve Ve	CCATG	CCATG	CTCTT	CTCTIC	STGCC	STGCC/	GCGAG	GCGAG	ATCTG	ATCTG	AATGC	AATGC	ACTGAC	ACTGAC	AACGAT	AACGAT	TAGACC	TAGACO	ACAAGO	ACAAGO		
Conservative	TCCAG	TCCAG	GAAGA	GAAGA	ACTCT	ACTCT	GTAAA	GTAAA(	ACTGC	ACTGC	GGTGA	GGTGA	CTGAC	CTGAC	CCGTA	CCGTA	ATAAG	ATAAG	25222	CCCGC	CTTGA	CTTGA
Conse	CCTGA	CCTGA	GTGAA	GTGAA	GGCTA	GGCTA	TGGGC	11GGG	TGGGA	TGGGA	GTAGC	GTAGO	TCATA	TCATA	CCACG	CCACG	ACGCA	ACGCA	GACGGGGCCCGCACAAGCGGT	99999	TACCTGGTCTTGACATA	TACCTGGTCTTGACATA
9		-	-	-	-	-	-		-	-	-	_	_	-	•		-	-	-	-	-	-
919	371	329	431	389	491	449	551	509	611	569	671	629	731	689	791	749	851	809	911	869	971	929
Matches																						
Σ	ò	a	ò	g	ò	С	ò	g	ò	g	ઠે	Q	ò	පු	ò	Ω	ò	q	ò	q	ò	g

Search completed: April 12, 2005, 12:56:33 Job time : 6693 secs

THIS PAGE BLANK (USPTO)

GenCore version 5.1.6 Copyright (c) 1993 - 2005 Compugen Ltd.	Ġ.	υ
OM nucleic - nucleic search, using sw model		
Run on: April 12, 2005, 10:00:33 ; Search time 870 Seconds	70 Seconds	υ
(without alignments) 10383.362 Million ce	(without alignments) 10383.362 Million cell updates/sec	υυ
Title: US-09-979-558A-1 Parfect score: 1526		
1 tttgatcatggctccagatt	acctgcggctggatcacctc 1526	
Scoring table: <pre>_QUIGO_NUC3</pre> Gapop 60.0 , Gapext 60.0		
Searched: 4390206 segs, 2959870667 residues		
Word size : 0	4	
Total number of hits satisfying chosen parameters: 87	8780412	
Minimum DB seq length: 0 Maximum DB seq length: 200000000		

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

geneseqn2003ds:\* geneseqn2004as:\* geneseqn2004bs:\*

						000000000000000000000000000000000000000	
1	į		de (			SUMMAKIES	•
Res	Result No.	Score	Query Match	Query Match Length DB	DB	ID	Description
:	<u> </u>	1526	100.0	1526	4	AAC87531	Aac87531 Psychroba
	7	136	8.9	1485	0	AAQ13256	. Aaq13256 16S rRNA
υ	m	136	8.9	269223	4	AAF28554	Aaf28554 Genomic f
	4	121	7.9	549	М	AAC95222	Aac95222 Cat flea
	S	121	7.9	1487	Ŋ	AAS11034	Aas11034 Shigella
	ø	121	7.9	1489	ø	ABS71622	Abs71622 Klebsiell
	7	121	7.9	1506	9	ABS71613	Abs71613 Escherich
	8	121	7.9	1533	13	ADQ81656	Adq81656 Enterobac
	6	121	7.9	1534	10	ADB61683	Adb61683 16S rRNA
	10	121	7.9	1540	Ч	AAN91514	Aan91514 Escherich
	11	121	7.9	1542	~	AAT29140	Aat29140 rRNA gene
	12	121	7.9	1542	4	AAC62270	Aac62270 Escherich
	13	121	7.9	1542	Ŋ	AAF23015	Aaf23015 E. coli 1
	14	121	7.9	1542	Ŋ	AAH75410	Aah75410 E. coli 1
	15	121	7.9	1542	9	ABN85800	Abn85800 Escherich
	16	121	7.9	1542	σ	ADB16299	Adb16299 Cleavase
	17	121	7.9	1542	σ	AAD57988	Aad57988 Escherich
	18	121	7.9	1542	10	ADC02547	Adc02547 E. coli r
	19	121	7.9	1542	12	ADQ16352	Adq16352 Nucleotid
	20	121	7.9	1549	m	AAA65897	Aaa65897 E. coli p

Ada66055 E. coli p	9 10 10 10	BBC SAG	Novel Pseudoa Pseudoa	Ads52325 Pseudoalt Abx16332 Aliphatic Aax83570 16S rDNA Aax83564 16S rDNA Aax83564 16S rDNA	168	
AAA66050 AAA66055	AAX24983 AAX24984 AAX24989	AAX24986 AAL62713 2 ADK51929	AAF85587 AAF17794	3 ADS52325 3 ABX16332 AAX83570 AAX83564 5 AAX83564	AAX83565 AAX83567 AAX83568	AAA46120 AAQ46119 AAS11022
1549 3	5097 5097 5105 22	5341 2 7508 9 10903 1	13278 1 1462 4 1474 6	1492 1494 1528 1529 20	1529	1535 2 888 2 1542 2 1541 5
0.00	, , , , , , o, o, o	 	0.77			0. C.
121	121	121	121 116 116	116 116 116	11111	115 115 114
22 23 23 23 23 23 23 23 23 23 23 23 23 2	C 2 2 4 5 2 4 5 2 4 5 2 4 5 2 4 5 5 4 5 5 4 5 5 4 5 5 6 5 6 5 6 6 6 6	0 0 U	33233	ພ ພ ພ ພ ແ 4 የን ቡ Γ α	) W 4 4 4	1 4 4 4 1 6 4 5

## ALIGNMENTS

Post-processing: Listing first 45 summaries

Database :

N\_Geneseq\_16Dec04:\*
1: geneseqn1980s:\*
2: geneseqn200s:\*
3: geneseqn200s:\*
4: geneseqn2001bs:\*
6: geneseqn2001bs:\*
6: geneseqn2002bs:\*
9: geneseqn2003bs:\*
10: geneseqn2003bs:\*

1200

1140 1140 1200

1020 1080

1020

960

960

900 900 1260

1320 1320 1380 1440

1500

1500

88. RNA;

ribosomal

```
CGAAGAACCTTACCTGGTCTTGACATACACAGAATCTTGTAGAGATACGAGAGTGCCTTC
                                                                                                                                                                                         GGGAATTGTGATACAGGTGCTGCATGGCTGTCGTCACCTCGTGTCGTGGAATGTTGGGTT
                                                                                                                                                                                                                                                TGATGCGAATCTCAAAAAGCCTATCGTAGTCCAGATTGGAGTCTGCAACTCGACTCCATG
                           841 AGTGACGCAGCTAACGCAATAAGTAGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACT
                                                                                    CAAATGAATTGACGGGGCCCCCCACAAGCGGTGGAGCATGTGGGTTTAATTCGATGCAACG
                                                                                                                                                                         GGGAATTGTGATACAGGTGCTGCATGGCTGTCGTCAGCTCGTGTCGTGAGATGTTGGGTT
                                                                                                                                                                                                                                 AAGTCCCCCAACGAGCGCAACCCTTGTCCTTAGTTACCAGCACTTCGGGTGGGAACTCTA
                                                                                                                                                                                                                                                                                          AGGATACTGCCAGTGACAAACTGGAGGAAGGCGGGGACGACGTCAAGTCATCATGGCCCT
                                                                                                                                                                                                                                                                                                           TACGACCAGGGCTACACCGTGCTACAATGGTAGGTACAGAGGGCAGCTACACAGGGATG
                                                                                                                                                                                                                                                                                                                                                                                                          TGATGCGAATCTCAAAAAGCCTATCGTAGTCCAGATTGGAGTCTGCAACTCGACTCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>AAGTAGGAATCGCTAGTAATCGCGGATCAGAATGCCGCGGTGAATACGTTCCCGGGCCTT</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGTAGGAATCGCTAGTAATCGCGGATCAGAATGCCGCGGTGAATACGTTCCCGGGCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTACACACGCCCGTCACACCATGGGAGTTGATTGCACCAGAAGTGGTTAGCCTAACTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTACACCACCACCACCATGGGAGTTGATTGCACCAGAAGTGGTTAGCCTAACTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGAGGGCGATCACCACGGTGTGGATGACTGGGGTGAAGTCGTAACAAGGTAGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAAATGAATTGACGGGGCCCGCACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACG
                                                                                                                 CGAAGAACCTTACCTGGTCTTGACATACACAGAATCTTGTAGAGATACGAGAGTGCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           238;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGGGAACCTGCGGCTGGATCACCTC 1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             detection; Moraxella; Neisseria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Moraxella catarrhalis; ITG 4197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                standard; DNA; 1485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        90EP-00400297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              90EP-00400297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16S rRNA gene (partial)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02-FEB-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          02-FEB-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO9111531-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24-OCT-2003
25-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  08-AUG-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-OCT-1991
                                                                                      901
                                                                                                                                                                                                     1021
                                                                                                                                                                                                                                    1081
                                                                                                                                                                                                                                                               1081
                                                                                                                                                                                                                                                                                            1141
                                                                                                                                                                                                                                                                                                                        1141
                                                                                                                                                                                                                                                                                                                                                 1201
                                                                                                                                                                                                                                                                                                                                                                                1201
                                                                                                                                                                                                                                                                                                                                                                                                             1261
                                                                                                                                                                                                                                                                                                                                                                                                                                        1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAQ13256;
                                                         901
                                                                                                                                              961
                                                                                                                                                                          1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAQ13256
                                                                                                                  961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAQ13256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                         à
                                                                                    g
                                                                                                                                        g
                                                                                                                                                                                                    엄
                                                                                                                                                                                                                                                       ď
                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                     БЪ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  임
                                                                                                                  8
                                                                                                                                                                 . ⋩
                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAATGGNGGGAACCCTGATCCAGCCATGCCGCGTGTGTGAAGAAGAGGCCTTTTGGTTGTAA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      780
                                           The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCACTTTAAGCAGTGAAGAAGACTCTTCGGTTAATACCCGGGGACGATGACATTAGCTG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cagerrecingecarcaracreacacreasecresaaaccinggrageaacaggarrag 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GATGGTGGGGTAAAGGCCTACCATGGCGACGATCTGTAGCTGGTCTGAGAGGATGATCAG 300
originally isolated from the Japan Trench. The invention also relates to a novel method for detecting or specifically identifying Psychrobacter pacificensis, Psychrobacter glacincola, and related species, or Psychrobacter pacificensis only via the use of the 165 rDNA sequence. The 165 rDNA sequence and derived oligonucleotide probe are useful for the species-specific detection of Psychrobacter pacificensis to study and monitor its growth as an indicator of the circulation of deep-sea water. The method of the invention is rapid, accurate and has high sensitivity, and removes the need to separate and culture the biological materials. The present sequence represents the Psychrobacter pacificensis 165 rDNA
                                                                                                                                                                                                                                                                              09
                                                                                                                                                                                                                                                   09
                                                                                                                                                                                                                                                                   GAAACGATGATAGCTTGCTATTAGGCGTCGAGCNGCCGGACGGACGGTGGTAATACTTAGGA
                                                                                                                                                                                                                                                                                                                                                                                      CCACACCGGGGACTGAGACACGGCCCGGACTCTACGGGAGGCAGCAGTGGGAATATTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ccccccrtaaccrcccarcrcraaacrcrraaacrcraagccragagraggraaggcaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TAGAATTTCAGGTGTAGCGGTGAAATGCGTAGAGATCTGAAGGAATACCGATGGCGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATACCCTGGTAGTCCACGCCGTAAACGATGTCTACTAGTCGTTGGGTCCCTTGAGGACTT
                                                                                                                                                                                                                                                                                                           GAAACGATGATAGCTTGCTATTAGGCGTCGAGCNGCCGGACGGGTGAGTAACTTAGGA
                                                                                                                                                                                                                                                                                                                                                                    ATCTACCTAGTAGTGGGGGATAGCTCGGGGAAACTCGAATTAATACCGCATACGTCTACG
                                                                                                                                                                                                                                                                                                                                                                                                                            GGAGAAAGCAGGGGNTCATTAGACCTTGCGCTATTAGATGAGCCTAAGTCGGATTAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGAGAAAGCAGGGGNTCATTAGACCTTGCGCTATTAGATGAGCCTAAGTCGGATTAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GATGGTGGCGTAAAGGCCTACCATGGCGACGATCTGTAGCTGGTCTGAGAGGATGATCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCACACCGGGACTGAGACACGGCCCGGACTCTACGGGAGGCAGCAGTGGGGAATATTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAATGGNGGGAACCCTGATCCAGCCATGCCGCGTGTGTGAAGAAGGCCTTTTTGGTTGTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGAATAAGCACCGGCTAACTCTGTGCCAGCAGCCGCGGTAATACAGAGGGTGCAAGCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TAATCGGAATTACTGGGCGTAAAGCGAGCGTAGGTGGCTTGATAAGTCAGATGTGAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TAATCGGAATTACTGGGCGTAAAGCGAGCGTAGGTGGCTTGATAAGTCAGATGTGAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCGGGCTTAACCTGGAACTGCATCTGAAACTGTTAGGCTAGAGTAGGTGAGAGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TAGAATTTCAGGTGTAGCGGTGAAATGCGTAGAGATCTGAAGGAATACCGATGGCGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGCTTCCTGGCATCATACTGACACTGAGGCTCGAAAGCGTGGGTAGCAAACAGGATTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATACCCTGGTAGTCCACGCCGTAAACGATGTCTACTAGTCGTTGGGTCCCTTGAGGACTT
                                                                                                                                                                                                                                                   TITGATCATGGCTCCAGATTGAACGACTGGGCGCCAGGCTTAACACATGCAAGTCGAGCG
                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                     ô
                                                                                                                                                                                        DB 4; Length 1526;
                                                                                                                                                              Sequence 1526 BP; 401 A; 332 C; 467 G; 323 T; 0 U; 3 Other;
                                                                                                                                                                                                                     0; Indels
                                                                                                                                                                                        100.0%; Score 1526;
100.0%; Pred. No. 0;
iive 0; Mismatches
                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 1526; Conserv
                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
   Ωp
                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

ö 911

Gaps

971

Rossau R,

bacteria.

```
92076 ACGGGGGCCCCCACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAAACGAAGAACCTT 92017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to novel cat flea (Ctenocephalides felis) nucleic acids which are expressed in hindgut and Malpighian tubule (HMT) tissue or head and nerve cord (HMC) tissue. The invention also relates to the encoded proteins. The invention additionally encompasses expression constructs, recombinant viruses and recombinant cells comprising the nucleic acids of the invention, recombinant production of the proteins, antibodies against the proteins, a method of identifying inhibitors of the proteins, and compositions comprising the inhibitors for administration to an animal. The nucleic acids, and the proteins they encode may be used in the prevention, treatment and diagnosis of diseases
AAF28554). The library has a number of uses described in the specification e.g. is useful for aidentifying diagnostic and therapeutic compositions. M. catarrhalis (Branhamella catarrhalis) is a large aerobic, gram-negative diplococcus, normally found among the bacterial flora of human upper airways. M. catarrhalis is known to cause acute, localised infections such as otitis media, sinusitis and bronchopulmonary infection and life-threatening, systemic diseases including endocarditis
                                                                                                                                                                                                                                                                                                                                                                            92136 TAACGCAATAAGTAGACCGCCTGGGGAGTAACGCCGCAAGGTTAAAACTCAAATGAATTG
                                                                                                                                                                                                                                                                                                                                         852 TAACGCAATAAGTAGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                               912 ACGGGGGCCCGCACAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Flea Malpighian tubule and head and nerve cord tissue derived nucleic acids useful for the prevention, diagnosis and treatment of flea
                                                                                                                                                                                                     Sequence 269223 BP; 77067 A; 56596 C; 57380 G; 78180 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cat flea; head and nerve cord nucleic acid; HNC; flea infestation; vaccine; antiparasitic; therapeutic target; diagnosis; detection; ss.
                                                                                                                                                                                                                                                 8.9%; Score 136; DB 4; Length 269223; 100.0%; Pred. No. 1.9e-60; ative 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cat flea head and nerve cord (HNC) cDNA, SEQ ID NO:1717.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Wisnewski
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 26; Page 820; 964pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Stinchcomb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   92016 ACCTGGTCTTGACATA 92001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAC95222 standard; cDNA; 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-APR-2000; 2000WO-US009437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99US-0128704P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19-FEB-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       972 ACCTGGTCTTGACATA
                                                                                                                                                                                                                                                                                               Matches 136; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ΡΊ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ctenocephalides felis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2000-656323/63.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaines
                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (HESK-) HESKA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200061621-A2
                                                                                                                                                         and meningitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       infestations.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Brandt KS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAC95222;
                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAC95222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT
    8888888888
                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention relates to a Moraxella catarrhalis genomic library comprising of a combination of 41 nucleic acid molecules (see AAF28514-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Genomic library for identifying diagnostic and therapeutic compositions, and for identifying virulence factors, regulatory elements and drug targets, comprises Moraxella catarrhalis nucleic acids.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Genomic library; bacteria; human upper airway; otitis media; sinusitis; bronchopulmonary; endocarditis; meningitis; ss.
                                                                                                                                 Nucleic acid probes for selective detection of branhamella catarrhalis can detect bacterial -RNA or DNA and differentiate it from other
                                                                                                                                                                                                                                                                 This sequence was used to derive the probes BC1-BC5 as represented in AAQ13258-67. Probes BC9 as represented in AAQ13268-65 are derived from the 233 ENNA gene (AAQ10257). (Updated on 25-MAR-2003 to correct PI field.) (Updated on 24-OCT-2003 to standardise OS field)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  852 TAACGCAATAAGTAGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 809 TAACGCAATAAGTAGACCGCCTGGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACGGGGCCCGCACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1485;
                                                                                                                                                                                                                                                                                                                                                                                Sequence 1485 BP; 390 A; 325 C; 449 G; 320 T; 0 U; 1 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                          Score 136; DB 2; I
Pred. No. 2.5e-60;
                                                                                                                                                                                                                                                                                                                                                                                                            8.9%; Scor.
100.0%; Pred. No. ...
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 1; Page 486-545; 545pp; English.
                                                                                                                                                                                                                          Disclosure; Fig 1(A); 41pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ä.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ВЪ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Berg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAF28554 standard; DNA; 269223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCTGGTCTTGACATA 944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16-JUN-2000; 2000WO-US016649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99US-0140121P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (INCY-) INCYTE GENOMICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity LUU.
Matches 136; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Lagace RE, Patterson C,
  (INNO-) INNOGENETICS NV
                                            Vanheuvers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Moraxella catarrhalis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Genomic fragment #41.
                                                                                        WPI; 1991-252662/34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-041427/05.
                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200078968-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-DEC-2000
```

AAF28554;

AAF28554/ RESULT 3

g

ò

912 869 972

ð 셤 ð g ż

```
associated with flea infestations. For example, the nucleic acids may be used to produce an HMT or HNC protein according to standard recombinant by machodology by inserting the nucleic acids into a host cell and culturing the cell to express the protein. The HMT and HMC nucleic acids may also be used as DNA probes in diagnostic assays (e.g., PCR) to detect and quantitate the presence of cat flea or other homologous nucleic acid sequences in samples. They may also be used to study the expression and function of the proteins and their role in metabolism. The HMT and HNC proteins may be used as antigens in the production of specific antiabodies, and in assays to identify modulators (agonists and antagonists) of HMT and/or HNC protein expression and activity. The anti-HMT/HNC protein antibodies and antagonists may also be used to downregulate protein expression and activity. The antibodies are diagnostic agents for detecting the presence of flea polypeptides in samples (e.g., by enzyme linked immunosorbent assay (ELISA)). The present sequence represents a cat flea HNC cDNA of the invention
                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Antisense; bacterial 16s ribosomal RNA; rRNA; bacterial infection; human; food grain supplement; livestock; poultry; therapeutic; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                             GACCGCCTGGGGGGTTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGGCCCGCAC 222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Antibacterial compound, useful for treating bacterial infections and as
                                                                                                                                                                                                                                                                                                                                                                                                              GACCGCCTGGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAGCGGTGGAGCATGTGGTTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA
                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         livestock and poultry food supplement, comprises antisense oligonucleotides complementary to bacterial 16S and 23S rRNA
                                                                                                                                                                                                                                                                                                                                        Length 549;
                                                                                                                                                                                                                                                                                                      Sequence 549 BP; 132 A; 131 C; 173 G; 112 T; 0 U; 1 Other;
                                                                                                                                                                                                                                                                                                                                                                           0; Indels
                                                                                                                                                                                                                                                                                                                                        Score 121; DB 3; I
Pred. No. 1.9e-52;
                                                                                                                                                                                                                                                                                                                             7.9%; Scor.
100.0%; Pred. No. 1...
... 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Shigella dysenterae 16s ribosomal RNA gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page; 62pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAS11034 standard; DNA; 1487 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-NOV-2000; 2000WO-US042391.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99US-0168150P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (AVIB-) AVI BIOPHARMA INC.
                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Shigella dysenteriae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2001-457295/49.
                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200142457-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          T 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                           Matches 121;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAS11034;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      223
                                                                                                                                                                                                                                                                                                                                                                                                                998
                                                                                                                                                                                                                                                                                                                                                                                                                                                  163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          283
                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

AAS11021-AAS11034 represent the coding sequences of bacterial 16s

```
ribosomal RNA (rRNA) genes. The sequences were used to design antibacterial compounds comprising substantially uncharged antisense oligomers containing 8 40 nucleotide subunits, including a trargeting nucleic acid sequence at least 10 nucleotides in length which is complementary to a bacterial 16S or 23S rRNA nucleic acid sequence. The antisense oligomers are used for treating a bacterial infection in a human or a mammalian animal produced by Escherichia coli, Salmonella typhimurium, Pseudomonas aeruginosa, Vibrio cholera, Neisseria cyphimurium, Pseudomonas aeruginosa, Vibrio cholera, Neisseria conorrhoea, Helicobacter pylori, Bartonella hanselae, Haemophilus influenza, Shigella dysenterae, Staphylococcus aureus, Mycobacterium tuberculosis, Streptococcus pneumoniae, Treponema palladium and Chlamydia trachomatis. The antibacterial compound may be used as a food grain sequence is not shown in the specification but has been accessed from GenBank using the appropriate accession number given in the
                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                            925
                                                                                                                                                                                                                                                                                                                                                                                                                                                               985
                                                                                                                                                                                                                                                                                                                                                                                                                             916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Detecting and determining species source of eubacterial DNA in a sample, comprises amplifying template DNA in the sample using a real-time polymerase chain reaction with the use of primers and at least two
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention describes a method of detecting and determining species source of eubacterial DNA in a sample. The method comprises amplifying
                                                                                                                                                                                                                                                                                                                                                                                            866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                             926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                             ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    88.
                                                                                                                                                                                                                                        GenBank using the appropriate accession number given in the specification. (Updated on 06-AUG-2003 to correct OS field.)
                                                                                                                                                                                                                                                                                                                            Length 1487;
                                                                                                                                                                                                                                                                                            Sequence 1487 BP; 375 A; 341 C; 472 G; 299 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene;
                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eubacteria; species detection; speciation; 16s RNA;
                                                                                                                                                                                                                                                                                                   A; 3rr ...
7.9%; Score 121; DB 5; Le
'^ 0%; Pred, No. 1.8e-52;
' o 0;
                                                                                                                                                                                                                                                                                                                                      100.0%; Pred. ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kelen GD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA; 1489 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 1; Page; 39pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Klebsiella pneumoniae 16s RNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAR-2002; 2002WO-US006050.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAR-2001; 2001US-0272642P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SNING OUTU (OLYU)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Lin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-NOV-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                               Best Local Similarity 100.
Matches 121; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Klebsiella pneumoniae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Yang S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2002-698755/75.
                                                                                                                                                                                                                                                                                                                             Query Match
Rest Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABS71622 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             fluorogenic probes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200270728-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   986 T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ť 977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rothman RE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABS71622;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
```

us-09-979-558a-1.olig.rng

```
ö
                                                                                                                                                                                                                                                                                                         905
                                                                                                                                                                                                                                                                        925
                                                                                                                                                                                                                                                                                                                                              985
                                                                                                                                                                                                                                                                                                                                                                            906 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 965
template DNA in the sample using a real-time polymerase chain reaction (FT PCR), where the PCR or PCR reaction mixture comprises primers and at least two fluorogenic probes. The methods are useful in detecting and determining species source of eubacterial DNA in a sample. The present method allows for highly sensitive detection of any eubacterial species with simultaneous speciation. It eliminates false positive results in detecting bacterial infections. This sequence represents a bacterial los RNA gene used to create the primers of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source of eubacterial DNA in a sample. The method comprises amplifying template DNA in the sample using a real-time polymerase chain reaction (R T PCR), where the PCR or PCR reaction mixture comprises primers and at least two fluorogenic probes. The methods are useful in detecting and determining species source of eubacterial DNA in a sample. The present method allows for highly sensitive detection of any eubacterial species with simultaneous speciation. It eliminates false positive results in detecting bacterial infections. This sequence represents a bacterial 16s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sample,
                                                                                                                                                                                                                                                                    GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGAACGGGGGCCCGGCAC
                                                                                                                                                                                                                                                                                                         GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                         AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA
                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention describes a method of detecting and determining species
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Detecting and determining species source of eubacterial DNA in a sr
comprises amplifying template DNA in the sample using a real-time
polymerase chain reaction with the use of primers and at least two
                                                                                                                                                                                                                                     ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    species detection; speciation; 16s RNA; gene; ss.
                                                                                                                                                                                                  Length 1489;
                                                                                                                                                           Sequence 1489 BP; 375 A; 341 C; 475 G; 294 T; 0 U; 4 Other;
                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     used to create the primers of the invention
                                                                                                                                                                                       DB 6;
1.8e-52;
0; T
                                                                                                                                                                                                7.9%; Score 121; DB
100.0%; Pred. No. 1.8
ive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Kelen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABS71613 standard; DNA; 1506 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 1; Page; 39pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Lin S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAR-2002; 2002WO-US006050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-MAR-2001; 2001US-0272642P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (UYJO ) UNIV JOHNS HOPKINS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                 Matches 121; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Escherichia coli 16s RNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Yang S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2002-698755/75.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  fluorogenic probes.
                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Escherichia coli:
                                                                                                                                                                                                                                                                                                                                                                                                               T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200270728-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                  T 966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eubacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12-SEP-2002
                                                                                                                                                                                                                                                                                                       846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABS71613;
                                                                                                                                                                                                                                                                        998
                                                                                                                                                                                                                                                                                                                                           926
                                                                                                                                                                                                                                                                                                                                                                                                               986
                                                                                                                                                                                                                                                                                                                                                                                                                                                  996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RNA gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT
 8888888888888
                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This invention relates to a novel microorganism having a 16S rRNA gene comprising a fully defined sequence of 1533 nucleocides. Specifically, it refers to a water soluble polysaccharide producing microbe identified as Enterobacter ap. C-1 (FERM P-18947). The present invention describes the water soluble polysaccharide as comprising fucose, galactose, glucose and glucuronic acid, and collection of the same involves altering the pH value of the microbial culture solution to pH 4 by adding long-chain quaternary ammonium salt in order to isolate the ammonium salt
                                                                                                  GACCGCCTGGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCCGCAC 925
                                                                                                                                   GACCGCCTGGGGGGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC 916
                                                                                                                                                                         985
                                                                                                                                                                                           precipitate of the polysaccharide. Accordingly, this microorganism is useful for producing water-soluble polysaccharides that in turn can be used to produce the anti-cancer substance 4,5-dihydroxy 2-cyclopentene-1-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel microorganism having 16S rRNA gene, useful for producing water-soluble polysaccharide which produces anti-cancer substance on heating for long time.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     one (DHCP). Furthermore, the water-soluble polysaccharide compositions are useful in food and paper diaper products. This polynucleotide
                                                                                                                                                                         AAGCGGTGGAGCATGTGGTTTAATTTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA
                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       soluble polysaccharide; fucose;
                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    microorganism; 16S rRNA; ds; water soluble polysaccharide; fugalactose; glucose; glucuronic acid; anti-cancer;
4,5-dihydroxy 2-cyclopentene-1-one; DHCP; food; paper diaper.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C-1 strain 16S rRNA gene of
                                  Length 1506;
Sequence 1506 BP; 378 A; 346 C; 481 G; 301 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1533 BP; 383 A; 354 C; 489 G; 307 T; 0 U; 0 Other;
                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Enterobacter sp. C-1 strain 16S rRNA gene SegID 1.
                              Score 121; DB 6; ]
Pred. No. 1.8e-52;
                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 1; SEQ ID NO 1; 15pp; Japanese.
                                  7.5°5; 21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         eb.
                                                                                                                                                                                                                                                                                                                                                                ADQ81656 standard; DNA; 1533 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27-DEC-2002; 2002JP-00380990.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        is the Enterobacter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27-DEC-2002; 2002JP-00380990
                                                                                                                                                                                                                                                                                                                                                                                                                                   21-OCT-2004 (first entry)
                                                                Matches 121; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ř
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (ASAH ) ASAHI KASEI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2004-538189/52
                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Enterobacter sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JP2004208563-A.
                                                                                                                                                                                                                                         T 986
                                                                                                                                                                                                                                                                            977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29-JUL-2004
                                                                                                  998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        invention
                                                                                                                                                                       926
                                                                                                                                                                                                       917
                                                                                                                                                                                                                                                                                                                                                                                                 ADQ81656;
                                                                                                                                     857
                                                                                                                                                                                                                                         986
                                                                                                                                                                                                                                                                          977
                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         seguence
                                                  Local
                                                                                                                                                                                                                                                                                                                              RESULT 8
                                                                                                                                                                                                                                                                                                                                              ADQ81656
                                                                                                                             g
                                                                                                                                                                       ò
                                                                                                                                                                                                     g
                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                ò
```

7.9%; Score 121; DB 13; Length 1533;

Query Match

```
986 T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             989
                                                                                     the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-APR-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-APR-1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-MAR-2003
02-MAR-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-OCT-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             T 686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EP337896-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAN91514;
or 18S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAN91514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8×333333
                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This invention relates to a novel method for isolating, depleting or separating a targeted nucleic acid, such as rRNA, from a sample comprising targeted and non-targeted nucleic acids. It effects a way of enriching for non-targeted nucleic acids such as mRNAs. Isolating sufficient quantities of high quality bacterial mRNAs is a demanding prosesse which impedes analysis of bacterial mRNAs is a demanding presence of host cells. A small percentage of bacterial mRNAs may be poly a tailed, but these are targeted for degradation and tend to be unstable. As a result, the commonly employed method for mRNA purification with eukaryotic cells, oligo-dr capture, is ineffective. The present invention provides an alternative, more suitable method for mRNA continued from prokaryotes. The method of the invention comprises the incubation of a sample with a bridging oligonucleotide (containing a targeting region) and subsequently incubating with a capture containing a targeting region and subsequently incubating with a capture containing method is useful for depleting or isolating targeted from the sample. The method is useful for depleting or isolating targeted nucleic acid, for example rRNA such as prokaryotic 16S or prokaryotic 23S, eukaryotic 17S
                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          enriching mRNA, high quality bacterial mRNA, bacterial gene expression, poly-A tail; mRNA purification, oligo-dT capture, prokaryote mRNA purification, bridging oligonucleotide, targeting region, capture oligonucleotide, prokaryotic 16S rRNA, prokaryotic 23S rRNA; eukaryotic 17S rRNA, eukaryotic 18S rRNA, eukaryotic 18S rRNA, eukaryotic 18S rRNA, eukaryotic 18S rRNA, eukaryotic 18C rR
                                                                 925
                                                                                                                                                    AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         using a
                                                                                                            927
                                                                                                                                                                                          AAGCGGTGGAGCATGTGGTTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 987
                                                                 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC
                                                                                                   GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC
                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Depleting or isolating targeted nucleic acids e.g. rRNA, involves us
bridging oligonucleotide comprising bridging region and a targeting
region complementary to a targeted nucleic acid, and a capture
                        ö
                        Indels
                        ·
0
  No. 1.8e-52;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16S rRNA of Klebsiella pneumoniae DNA sequence.
                      0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 4; Page 169-170; 208pp; English
  Pred.
                                                                                                                                                                                                                                                                                                                                                                                            BP.
  100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-DEC-2001; 2001US-00029397.
                                                                                                                                                                                                                                                                                                                                                                                            ADB61683 standard; DNA; 1534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19-DEC-2002; 2002WO-US041014.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                        Matches 121; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Murphy GL, Whitley JP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Klebsiella pneumoniae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-663255/62.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (AMBI-) AMBION INC.
    Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        oligonucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO2003054162-A2
                                                                                                                                                                                                                                          T 986
                                                                                                                                                                                                                                                                                  T 988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3-JUL-2003
                                                                                                                                                      926
                                                                                                                                                                                                                                                                                                                                                                                                                                       ADB61683;
                                                                   998
                                                                                                            898
                                                                                                                                                                                                 928
                                                                                                                                                                                                                                          986
                                                                                                                                                                                                                                                                                     988
                                                                                                                                                                                                                                                                                                                                                                        ADB61683
ID ADB
                                                                                                                                                                                                                                                                                                                                                    RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                   유
                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                g
                                                                                                                                                      ò
                                                                                                                                                                                                                                       ò
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N. gonorrhoea rRNA is aligned with this sequence, so specific probe regions (see features) can be identified (Updated on 25-MAR-2003 to correct PR field.) (Updated on 25-MAR-2003 to correct PA field.) (Updated on 25-MAR-2003 to correct PI field.)
                                                                                                                                                                                                                                                                                          925
                                                                                                                                                                                                                                                                                                                                                                                   985
                                                                                                                                                                                                                                                                                                                                                                                                                                  988
                                                                                                                                                                                                                                                                                                                                    928
                                                                          t
                                                                                                                                                                                                                                                                                                                                                                                                              929 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA
                                                                                                                                                                                                                                                                                          866 GACCGCCTGGGGAGTACGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                     926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA
                                                                                                                                                                                                                                                                                                                     869 GACCGCCTGGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC
                             comprise any one of 64 fully defined sequences as given in the specification. The present sequence is that of a DNA sequence which represents the sequence of 16S rRNA of Klebsiella pneumoniae related
                                                                                                                                                                                                                                             Gaps
eukaryotic 28S rRNA, from a sample. The rRNA sequence may any one of 64 fully defined sequences as given in the tion. The present sequence is that of a DNA sequence which

    some being

                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                              Length 1534;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1540 BP; 388 A; 352 C; 487 G; 0 T; 313 U; 0 Other;
                                                                                                                                             Sequence 1534 BP; 385 A; 351 C; 486 G; 310 T; 0 U; 2 Other;
                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hybridisation probes for detecting Neisseria strains specific for neisseria gonorrhoeae.
                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                            Score 121; DB 10;
Pred. No. 1.8e-52;
                                                                                                                                                                               7.9%; Scc...
100.0%; Pred. No....
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Escherichia coli 16S ribosomal RNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; Fig 8; 60pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAN91514 standard; rRNA; 1540 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        89EP-00401045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    88EP-00400929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Probe; Neisseria gonorrhoeae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ј= а
.488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            J= b
.858
T= c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                            Query Match 7.9
Best Local Similarity 100.
Matches 121; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rossau R, Vanheuvers H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (INNO-) INNOGENETICS NV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           66. .69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          432.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1989-302611/42.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Escherichia coli
```

```
which the rRNA genes originated. 16S rRNA genes are given in AAT29140-42
                                                                                                                                                                                                                                                                                                                                                19-MAR-2001 (first entry)
                                                                           Matches 121; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2001-024581/03.
                                                              Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Escherichia coli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hendrickson ER,
                                                                                                                                                                                                       T 986
                                                                                                                                                                                                                                 T 997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200063443-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26-OCT-2000
                                                                                                                                                                                                       986
                                                                                                    998
                                                                                                                            877
                                                                                                                                                                                                                                                                                                                         AAC62270;
                                                                                                                                                                                                                                 997
                                                  Query Match
                                                                                                                                                                                                                                                                      RESULT 12
                                                                                                                                                                                                                                                                                  AAC62270
SXS
                                                                                                    ò
                                                                                                                           엄
                                                                                                                                                    ò
                                                                                                                                                                              셤
                                                                                                                                                                                                       ò
                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                             from the group consisting of Cleavase (RTM) BN enzyme, Thermus aquaticus from the group consisting of Cleavase (RTM) BN enzyme, Thermus aquaticus DNA polymerase, Escherichia coli ExolI and the Saccharomyces cerevisiae Radl/Radl0 complex. The nucleic acid substrate is preferably an oligonucleotide containing a human p53 gene sequence or alternatively, microbial gene sequences. Cleavage products are compared to the cleavage products of reference gene sequences. The method is used for detecting mutation in the human p53 gene; for identifying strains of microorganisms, especially bacteria selected from the the group of members of the genera Campylobacter. Escherichia, Mycobacterium, Salmonella, Shigella and Staphylococcus. The method may also be used for the identification of viruses, especially chepticis. Virus (RTV) and simian immunodeficiency virus (SIV). Seven primers (AAT29131-39) were used to amplify 165 rRNA genes. The amplified genes were then subjected to the cleavage method and the resulting from fragmentation patterns used in identification of the microorganisms from
                                     ö
                                                              925
                                                                                     935
                                                                                                            926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACTTACCTGGTCTTGACA 985
                                                                                                                        936 AAGCGGUGGACCAUGUGGUUVAAUUCGAUGCAACGGAAGAACCUVACCUGGUCUUGACA 995
                                                                         866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCGCAC
                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cleavage of nucleic acids to detect mutation(s) - allows detection es in human p53 gene, to identify strains of microorganisms and viruses.
                                                                                                                                                                                                                                                                                                                                                           p53; mutant; mutation; cleavage; nuclease; cleavase; Thermus;
Escherichia; Saccharomyces; Campylobacter; Mycobacterium; Shigella;
Staphylococcus; identification; detection; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Heisler LM;
                                    ö
         Length 1540;
                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lyamichev VI, Brow MAD, Oldenburg MC,
                                 ö
         Query Match
7.9%; Score 121; DB 1;
Best Local Similarity 80.2%; Pred. No. 1.8e-52;
Matches 97; Conservative 24; Mismatches 0.
                                                                                                                                                                                                                                                                                                                                  rRNA gene (rrsE) from Escherichia coli.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 34; Page 314; 433pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (THIR-) THIRD WAVE TECHNOLOGIES INC.
                                                                                                                                                                                                                                                      AAT29140 standard; DNA; 1542 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               94US-00337164.
95US-00402601.
95US-00484956.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      95US-00520946.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         95WO-US014673
                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1996-259862/26.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Dahlberg JE, Lyami
Fors L, Olive DM;
                                                                                                                                                                                                                                                                                                                                                                                                             Escherichia coli.
                                                                                                                                                                                966 U 966
                                                                                                                                                                T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                      WO9615267-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-NOV-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 09-NOV-1994;
09-MAR-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-AUG-1995;
                                                                                                                                                                                                                                                                                                         02-DEC-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                               23-MAY-1996,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-JUN-1995
                                                                                                                                                                                                                                                                                 AAT29140;
                                                                                                                                                                                                                              RESULT 11
                                                                                                                                                                                                                                          AAT29140
                                                                                                                                      유
                                                                                                                                                                                                                                                          g
                                                                                                            ò
                                                                                                                                                               ò
                                                                                                                                                                                       원
```

```
ö
                                                                                                                                                         ö
                                                                                                                                                                                                                                 925
                                                                                                                                                                                                                                                                                                              GACCGCCTGGGGAGTACGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC 936
                                                                                                                                                                                                                                                                                                                                                                                      926 AAGCGGTGGAGCATGTGGTTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                                                                                                                                                                                                  937 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present sequence represents a reference 16S rDNA sequence. The specification describes 16S rDNA sequences, derived from various strains of Dehalococcoides ethenogenes. These 16S rDNA profile is linked to dechlorinating activity. Bacterial strain comprising the 16S rDNA sequence of the invention are useful for the dechlorination of chlorinated compounds such as carboncetrachloride, tetrachloroethane, chlorinated compounds the profile is a such as carboncethane, dichloromethane, trichloroethane, dichloromethane, trichloroethane, dichloroethane, trichloroethane, dichloroethane, trichloroethane, dichloroethane, chlorinating bacteria, as well as sub-typing identification of new chlorinating bacteria, as well as sub-typing
                                                                                                                                                                                                                                 GACCGCCTGGGGGAGTACGGCCGCAAGGTTAAAACTCAAATTGAATTGACGGGGCCCCGCAC
                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16S rDNA; dechlorinating activity; chlorinated compound; vinyl chlor: carbontetrachloride; tetrachloroethane; chloroform; dichloromethane; trichloroethane; dichloroethylene; chlorinating bacteria; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New 16S rDNA profile derived from Dehalococcoides ethenogenes and
                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 7.9%; Score 121; DB 4; Length 1542; Best Local Similarity 100.0%; Pred. No. 1.8e-52; Matches 121; Conservative 0; Mismatches 0; Indels 0
                                                                        Score 121; DB 2; Length 1542;
Pred. No. 1.8e-52;
Sequence 1542 BP; 389 A; 352 C; 487 G; 314 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1542 BP; 389 A; 352 C; 487 G; 314 T; 0 U; 0 Other;
                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        indicative of a dechlorinating bacterial strain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Escherichia coli reference 16S rDNA sequence.
                                                                                            100.0%; Prec. ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           strains of Dehalococcoides ethenogenes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ε Ι.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure, Page 55; 55pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAC62270 standard; DNA; 1542 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (DUPO ) DU PONT DE NEMOURS & CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ebersole RC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99US-0129511P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13-APR-2000; 2000WO-US009883
                                                                                7.98;
```

ij

엄

ò 용

유 ò

ò

```
/*tag= i
/bound_moiety= "16S rRNA"
/note=""Binds nucleotides 238-221 to form a duplex"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /*tag= m
/bound_moiety= "16S rRNA"
/note= "Binds nucleotides 142-123 to form a duplex"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      to form a duplex"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          form a duplex"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          duplex"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              form a duplex"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a duplex'
                                                                                                                                                                                                                                                                                                                                                                                               /*teg= a form a duplex"
//teg= nbinds nucleotides 25-21 to form a duplex"
//teg= nbinds nucleotides 25-21 to form a duplex"
//teg= b
//bound moiety= "16S rRNA"
//note="Binds nucleotides 918-916 to form a dupley
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    form a duplex"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          form a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          t
t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ಭ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /bound_molety= "16S rRNA"
/note=""Binds nucleotides 314-312 to
123. .142
                                                                                                                                                                                                                                                                                                              RNA binding; antimicrobial; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /bound moiety= "16S rRNA"
/note=""Binds nucleotides 556-547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /bound_moiety= "16S rRNA"
/note= "Binds nucleotides 359-354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ţ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /bound molety= "16S rRNA"
/note="Binds nucleotides 403-394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /bound_moiety= "16S rRNA"
/note=_"Binds nucleotides
                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                           AAH75410 standard; rRNA; 1542 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /*tag= g
113. .115
/*tag= h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       , rag= n
289. .311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /*tag= o
312. .314
/*tag= p
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      υ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Φ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .238
                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240. .286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        39. .46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27. .37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             *tag=
                                                                                                                                                                                                                                                                                                              16S rRNA; 23S rRNA;
                                                                                                                                                                                                                                                                              E. coli 16S rRNA.
                                                                                                                                                                                                                                                                                                                                                  Escherichia coli.
                                                       T 986
                                                                                 :
U 997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_binding
                                                                                                                                                                                                                                                                                                                                                                                  Key
misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_binding
                                                                                                                                                                                                                                            18-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         stem_loop
                       937
                                                         986
                                                                                         997
                                                                                                                                                                                                           AAH75410;
                                                                                                                                            RESULT 14
                                                                                                                                                            AAH75410
                                                                                                                                                                                                            AND THE STATE OF T
                                                ð
                                                                                   임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Preparing a probe for nucleic acid hybridization assays comprises constructing a nucleotide polymer sufficiently complementary to hybridize to an TRNA region that distinguishes non-viral target from non-viral non-target species.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCCGCAC 925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention provides novel methods of producing probes for use in the identification of a number of microorganisms. These include E. coli, Mycobacteria, Mycoplasma, Campylobacter, Chlamydia, Enterobacter, Legionella, Salmonella, Pseudomonas, Neisseria gonorrheae, fungi and
                                        936
                                                                          AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                          Probe; PCR primer; 5S rRNA; 16S rRNA; 23S rRNA; 28S rRNA; 18S rRNA;
Mycobacterium; Enterococcus; Chlamydia; Mycoplasma; E. coli; Legionella;
Salmonella; Pseudomonas; Campylobacter; Neisseria gonorrheae; fungus;
                            GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATTGAATTGACGGGGGCCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1542;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1542 BP; 389 A; 351 C; 488 G; 0 T; 314 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7.9%; Score 121; DB 5; Length 15
80.2%; Pred. No. 1.8e-52;
ive 24; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hogan JJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Smith RD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Fig 1; 75pp; English.
                                                                                                                                                                                                                                                                    AAF23015 standard; rRNA; 1542 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          86US-00934244.
87US-00083542.
87WO-US003009.
8UUS-00806929.
91US-00806929.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             95US-00454063
                                                                                                                                                                                                                                                                                                                                      entry)
                                                                                                                                                                                                                                                                                                                                                                    E. coli 16S rRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Kop JA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GENP-) GEN-PROBE INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-060029/07.
                                                                                                                                                                                                                                                                                                                                      (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Escherichia coli.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mcdonough SH,
                                                                                                                                                T 986
                                                                                                                                                                                  997
                                                                                                                                                                                                                                                                                                                                                                                                                                                           bacterium; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             07-AUG-1987;
24-NOV-1987;
09-DEC-1988;
11-DEC-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-MAY-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22-FEB-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97;
                                                                                                                                                                                                                                                                                                                                      20-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US6150517-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21-NOV-2000
                                                                                                                                                                                  H
                                          877
                                                                            926
                                                                                                              937
                                                                                                                                                986
                                                                                                                                                                                                                                                                                                     AAF23015;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
            998
                                                                                                                                                                                997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Loc
Matches
                                                                                                                                                                                                                                  RESULT 13
```

셤 ò

ઠ

FT /*tag= ao	/*tag= ap	misc binding	/*tag= aq /bound_moiety= "16S rRNA"	/note= "Binds misc_binding 881883 /*teg at	/ rag= a1 / bound moiety= "16S rRNA"	stem_loop 8	protein_bind 910	•	protein_bind 911 /*tag= au	protein_bind 5		a w	protein_bind 915	FT /*tag= ax /*tag= ax /bound_moiety= "Streptomycin" FT misc binding 916. 918	/*tag= ay /bound_moiety= "16S rRNA"	misc_binding	FT /*tag= az   /bound_moiety= "16S rRNA"   FT /note= "Binds nucleotides 1396-1384 to form a duplex"	protein_bind 926		misc_binding 938. 343	/bour	misc_binding 946955 /*tag= bc		PT stem_loop 960975 PT /*tag= bd	misc_binding	/bound_/	misc_binding 9971003	/bound n	stem_loop 1002 1022 /***********************************	stem_loop	r. 1 / cag= Dn /	Total Matth	THE MATCHES 97; CORSERVATIVE 24; Mismatches 0; Indels 0; Gaps 0;		Db 877 GACCGCCUGGGAGUACGGCCGCAAGGUUAAAAUCAAAUGAAUG
/bound_moiety= "16S rRNA" /note= "Binds nucleotides 115-113 to form a dum]ex"		u)	/*tag≈ r /354359	/"cag= s /bound_moiety= "16S rRNA" /note= "Binds nucleorides sa.52 to form a durley"	8 III 03 75-55	7. rage r 394 . 403 /*+≥4	mojety= "16s rRNA" "Binde midlactides 46-10 to form a	1101 00 66-64	9	/*tag= w 500545	/*tag= x 523	/*tag= y /bound moiety= "Streptomycin" 	/*tag= z	/bound_moiety= "16S rRNA" /hote="Binds nucleotides 37-27 to form a duplex" 567569	aa moiety= "16S rRNA"	/noce= "binas nucleotides 863-881 to form a duplex" 277586	/*tag= ab /bound_moiety= "16S rRNA" /note= "Binds nucleotides 764-755 to form a duplex"	,51	10	moiety= "16S rRNA"	- ;;		/*tag= af /bound_molety= "Pactamycin, Edeine"	725732 /*tag= ag	735751 /*tag=_ah	-1-	64	-i-	110	79= a] 794 7+1-7-	/ ray= an /bound_moiety= "Kasugamycin, Pactamycin, Edeine" 795	/*tag= al // // // // // // // // // // // // //	1	/bound_moiety= "16S rRNA" /note="Binds nucleotides 879-874 to form a duplex"	823. 837 /*tag= an 861868
	stem_loop	stem_loop	misc_binding		stem_loop	misc_binding		stem_loop	stem_loop	stem_loop	protein_bind	1 1 1 1 1	5	misc binding	1	misc_binding		stem_loop	misc_binding		stem_loop	protein_bind		stem_loop	misc_binding		misc_binding		stem_loop	protein_bind	protein bind		misc_binding		stem_loop

ò 유

g ò

```
874...879
/*tag= al
/bound moiety= "16S rRNA"
/bound moiety= "16S rRNA"
/bound moiety= "16S rRNA"
/bote= "Binds nuclectides 826-821 to form a duplex"
/881...883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /*tag= am
/bound_moiety= "16S rRNA"
/note="Binds nucleotides 569-567 to form a duplex"
885. 912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /*tag= aa
/bound_moiety= "16S rRNA"
/note="Binds nucleotides 764-755 to form a duplex"
588. 651
/*tag= ab
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /*tag= ai
/bound_moiety= "16S rRNA"
/note= "Binds nucleotides 879-874 to form a duplex"
829. .857
                                                                                                                                                                                                                                                                                                                                                                                                                                                  *tag= z
'bound_moiety= "16S rRNA"
'note= "Binds nucleotides 883-881 to form a duplex"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /*tag= ag
/bound_moiety= "16S rRNA"
/note= "Binds nucleotides 586-577 to form a duplex"
769. 810
312. .314

*tag= p

/bound_moiety= "16S rRNA"

//note="Binds nucleotides 115-113 to form a duplex"

316. .337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /*tag= ac
/bound_molety= "16S rRNA"
/bound_molety= "16S rRNA"
/bound_molety= "Binds mucleotides 751-735 to form a duplex"
672. .717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /*tag= af
/bound_moiety= "16S rRNA"
/note= "Binds nucleotides 671-655 to form a duplex"
/55. .764
                                                                                                                                     *tag= s
/bound_moiety= "16S rRNA"
/note= "Binds nucleotides 58-52 to form a duplex"
                                                                                                                                                                                                                                                                                                                                                                     547. 556
/*tag= y
/bound_moiety= "16S rRNA"
/note= "Binds nucleotides 37-27 to form a duplex"
567. 569
                                                                                                                                                                                                              394. .403
/*tag= u
/bound_moiety= "16S rRNA"
/note= "Binds nucleotides 46-39 to form a duplex"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ad .732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        , 868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /*tag= ae
735. .751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /*tag= ah
821..826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g= ab
.671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3= ak
.879
                                                                                                                                                                                                                                                                                             '*tag= v
|42. .492
                                                                                                                                                                                                                                                                                                                             /*tag= w
500..545
                                                                            /*tag= q
339. .350
                                                                                                           /*tag= r
354. .359
                                                                                                                                                                                                                                                                               .436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           *tag=
                                                                                                                                                                                                      *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    *tag=
                                                                                                                                                                                                                                                                                                                                                          *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nisc binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_binding
   misc binding
                                                                                                                         misc_binding
                                                                                                                                                                                                                   misc_binding
                                                                                                                                                                                                                                                                                                                                                                        misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        stem_loop
                                                            stem_loop
                                                                                                                                                                                      stem_loop
                                                                                                                                                                                                                                                                                  stem_loop
                                                                                                                                                                                                                                                                                                                                            stem_loop
                                                                                             stem_loop
                                                                                                                                                                                                                                                                                                             stem_loop
    /*tag= 1
221. .238
/b-tag= m
/bound moiety= "168 rRNA"
/note="Binds nucleotides 142-123 to form a duplex"
40. .286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           *tag= i
bound_moiety= "16S rRNA"
'hotoe= "Binds nucleotides 238-221 to form a duplex"
.44. .178
                                                                                                                                                                                                                                                                                             Fluorescence in-situ hybridization; FISH, microorganism; detection;
biofilm; 168 rRNA; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                  17. 19
/*tage b
/bound_moiety= "16S rRNA"
/note= "Binds nucleotides 918-916 to form a duplex"
/note= "Binds nucleotides 918-916 to form a duplex"
/10. 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /*tag= d
/bound moiety= "16S rRNA"
/bound moiety= "los rRNA"
/bote= "Binds nucleotides 556-547 to form a duplex"
39. .46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    *tag= e
/bound_moiety= "16S rRNA"
/note= "Binds nucleotides 403-394 to form a duplex"
(2. .58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              *tag= f
bound moiety= "16S rRNA"
note=""Binds nucleotides 359-354 to form a duplex"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             *tag= h
'bound_moiety= "16S rRNA"
'note= "Binds nucleotides 314-312 to form a duplex"
23. .142
                                                                                                                                                                                                                                                                                                                                                                                            9. 13
^-tags a "16S rRNA"
|bound moiety= "16S rRNA"
|note= "Binds nucleotides 25-21 to form a duplex"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               *tag= c
bound_moiety= "16S rRNA"
'note="Binds nucleotides 13-9 to form a duplex"
                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                           ABN85800 standard; rRNA; 1542 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /*tag= n
289. .311
/*tag= o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;1. .106
/*tag= g
/13. .115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /*tag= k
.99. .218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .193
                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                     Escherichia coli 16S rRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       *tag=
                                                                                                                                                                                                                                                                                                                                                  Escherichia coli.
                                                                 986 T 986
                                                                                              997 U 997
                                                                                                                                                                                                                                                                                                                                                                               Key
misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_binding
                                                                                                                                                                                                                                        29-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         stem_loop
                                                                                                                                                                                                        ABN85800;
                                                                                                                                             ABN85800
ABN85800
ABN85800
XX
AC ABN85
XX
XX
AC ABN85
XX
XX
BCCC
XX
XX
BCCCC
XX
XX
BCCCC
XX
BCCC
XX
BC
```

us-09-979-558a-1.olig.rng

```
g
                                                                                                                                                                                                        셤
                                ò
                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /ttdg= at / bound moiety= "16S rRNA" / bound moiety= "16S rRNA" / ftdg= at / hote= "Binds nucleotides 1221-1215 to form a duplex" / bound moiety= "16S rRNA" / hound moiety= "16S rRNA" / hote= "Binds nucleotides 1044-1037 to form a duplex" / hote= "Binds nucleotides 1044-1037 to form a duplex" / ftdg= av / hote= av / hound moiety= "16S rRNA" / hote= "Binds nucleotides 1003-997 to form a duplex" / hote= "Binds nucleotides 1003-997 to form a duplex" / hote= "Binds nucleotides 1003-997 to form a duplex" / hote= "Binds nucleotides 1003-997 to form a duplex" / hote= "Binds nucleotides 1003-997 to form a duplex" / hote= "Binds nucleotides 1003-997 to form a duplex" / hote= "Binds nucleotides 1003-997 to form a duplex" / hote= "Binds nucleotides 1003-997 to form a duplex" / hote= "Binds nucleotides 1003-997 to form a duplex" / hote= "Binds nucleotides 1003-997 to form a duplex" / hote= "Binds nucleotides 1003-997 to form a duplex" / hote= "Binds nucleotides 1003-997 to form a duplex" / hote= "Binds nucleotides 1003-997 to form a duplex" / hote= "Binds nucleotides nu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       *tag= ay
bound moiety= "16S rRNA".

*tag= ay
bound moiety= "16S rRNA".

*tag= "1209

*tag= az

*tag= az
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                *tag= ba
bound moiety= "168 rRNA"
note= "Binds nucleotides 1107-1102 to form a duplex"
0755. 1082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /*tag= bd//hote= "l6S rRNA"
/*tag= bd//hote= "l6S rRNA"
/*note= "lands nucleotides 1073-1068 to form a duplex"
/*tag= be be per "l6S rRNA"
/*tag= be her "l6S rRNA"
                                                                                                                                              121. .933
*tag= ap
bound_molety= "16S rRNA"

"note= "Binds nucleotides 1396-1384 to form a duplex"

138. .943
                                                                                                                                                                                                                                                                                                                                                                                                                                 *tag= ar
bound molety= "16S rRNA"
note="Binds nucleotides 1235-1225 to form a duplex"
60. .975
                                                                                                                                                                                                                                                                                                      *tag= aq
bound molety= "16S rRNA"
hoto= "Binds nucleotides 1345-1340 to form a duplex"
46. .955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Gaps
                                                      *tag= ao
bound_moiety= "16S rRNA"
note="Binds nucleotides 19-17 to form a duplex"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1542;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 7.9%; Score 121; DB 6; Length 15.
Best Local Similarity 80.2%; Pred. No. 1.8e-52;
Matches 97; Conservative 24; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /*tag= bg
1186. .1187
/*tag= bh
/bound_moiety= "16S rRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1087. .1098
'*tag= bc
/*tag= an
916. .918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /*tag= as
384. .990
                         misc_binding
                                                                                                                                       misc_binding
                                                                                                                                                                                                                                                                         misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                   misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          stem_loop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
```

g

```
Search completed: April 12, 2005, 11:04:59 Job time : 876 secs
                                       986 T 986
                                                      :
997 U 997
```

THIS PAGE BLANK (USPTO)

```
Query Match
8.9%; Score 136; DB 1; I
Best Local Similarity 100.0%; Pred. No. 5.9e-61;
Matches 136; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-299-810A-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
Sequence 1, Appli
Sequence 158, App
Sequence 158, Appl
Sequence 158, App
Sequence 33, Appl
Sequence 33, Appl
Sequence 89, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Appli
Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 242, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 13, Appl
Sequence 14, Appl
                                                                                                                                                                                              (without alignments)
8917.708 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 402, App
Sequence 2, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 27, App]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                               US-09-979-558A-1
1526
1 tttgatcatggctccagatt......acctgcggctggatcacctc 1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 14, Sequence 1, 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Seguence 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 8,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                    April 12, 2005, 10:45:29; Search time 280 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /cgn2_6/ptodata/1/ina/5A_COMB.seq:*
/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
/cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
                    GenCore version 5.1.6
(c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PCT - US91 - 0.1574 - 13

US - 0.7 - 923 - 871 C - 13

US - 0.8 - 725 - 623 - 14

US - 0.8 - 757 - 623 - 158

US - 0.8 - 757 - 623 - 158

US - 0.9 - 465 - 355 - 2

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 158

US - 0.9 - 655 - 378A - 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-557-884-1
US-09-557-884-1
US-09-643-990A-1
US-09-643-990A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-744-490-14
US-09-793-920A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                             1202784 seqs, 818138359 residues
                                                                                                                  - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Post-processing: Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                    OLIGONNOS GAPEXT 60.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Issued Patents NA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1542
1542
1542
1542
1542
1549
1549
1549
1549
1549
1830121
1830121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score
                                                                                                                                                                                                                                                                                           Perfect score:
                                                                                                                                                                                                                                                                                                                                                                    Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             977
977
977
977
977
977
977
977
977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Word size :
                                                                                                                  OM nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Database :
                                                                                                                                                                                                                                                                                                                     Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                             Searched:
                                                                                                                                                                    Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     118
119
22
22
23
24
25
26
27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
```

υ

```
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1462, Ap
Sequence 1, Appl
Sequence 1, Appl
                                                Sequence 1, Al
Sequence 1, Al
Sequence 1, Al
Sequence 5, Al
Sequence 81, Al
Sequence 81, Al
                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1,
Sequence 1,
Sequence 4,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 27, Application US/08299810A
Patent No. 5721097
GENERAL INFORMATION
APPLICANT: Rosau, Rudi
APPLICANT: Van Heuverswyn, Hugo
TITLE OF INVENTION: HYBRIDIZATION PROBES FOR THE
TITLE OF INVENTION: DETECTION OF BRANHAMELLA CATARRHALIS STRAINS
NUMBER OF SEQUENCES: 28
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                Sequence Sequence 8
                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1485;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: USAN
ZIP: 55402
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTON DATA:
APPLICATION NUMBER: US/08/299,810A
FILING DATE: 01-SEP-1994
FI
US-09-748-205-1

US-09-951-720-1

US-10-411-319-1

US-10-411-319-1

US-10-266-787-5

US-09-934-868-81

US-09-934-868-81

US-09-617-858-1

US-09-617-858-1

US-09-617-858-1

US-09-617-858-1

US-09-985-846-1

US-09-985-846-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE: Merchant & Gould
STREET: 3100 No. 5721097west Center
CITY: Minneapolis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Branhamella catarrhalis IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: DNA (genomic) ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 1485 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16S rRNA Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
```

ö

Gaps

; 0

Indels

```
HYPOTHETICAL: N
HYPOTHETICAL: NO
HOTT-US91-01574-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       986 T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                336 T 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          92136 TAACGCAATAAGTTAGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTG 92077
                                                                                                                                                                                                                                                                                                  APPLICANT: Lagace, Robert, E.
APPLICANT: Patterson, Chandra
APPLICANT: Berg, Kim, L.
TITLE OF INVENTION: NUCLECTIDE SEQUENCES OF MORAXELLA CATARRHALIS GENOME
FILE REPERENCE: PM-0.008-4 US
CURRENT APPLICATION NUMBER: US/09/596,002
CURRENT FILING DATE: 2000-06-16
PRIOR APPLICATION NUMBER: 60/140,121
PRIOR APPLICATION NUMBER: 60/140,121
PRIOR FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS:
350 TR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     912 ACGGGGGCCCGCACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTT 971
                                       TAACGCAATAAGTAGACCGCCTGGGGAGTACGCCGCAAGGTTAAAACTCAAATGAATTG 868
                                                                                  912 ACGGGGGCCCGCACAAGCGGTGGAGCATGTGGTTTTAATTCGATGCAACGCGAAGAACCTT 971
                                                                                                                       869 ACGGGGCCCGCACAAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTT 928
TAACGCAATAAGTAGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTG 911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                852 TAACGCAATAAGTAGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              / Match 8.9%; Score 136; DB 4; Length 269223; Local Similarity 100.0%; Pred. No. 4.9e-61; Local 136; Conservative 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: White Ph.D, Thomas J.

APPLICANT: White Ph.D, Thomas J.

APPLICANT: Dodge, Deborah E.

TITLE OF INVENTION: Method for Diagnosis of Lyme Disease
NUMBER OF SEQUENCES: 30

CORRESPONDENCE ADDRESS:

ADDRESSEE: Cetus Corporation
STREET: 1400 Fifty-Third Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: misc_feature
OTHER INFORMATION: Incyte template ID No. 6632636 41
PUBLICATION INFORMATION:
US-09-596-002-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 3
PCT-US91-01574-13
PCT-US91-01574
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                           US-09-596-002-41/c
; Sequence 41, Application US/09596002
; Patent No. 6632636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            92016 Accredictricacara 92001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Moraxella catarrhalis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       972 ACCTGGTCTTGACATA 987
                                                                                                                                                                  ACCTGGTCTTGACATA 987
                                                                                                                                                                                                         929 ACCTGGTCTTGACATA 944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZIP: 94608
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Emeryville
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID NO 41
LENGTH: 269223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: F
STATE:
                                         809
                                                                                                                                                                  972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Loca
Matches
                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                В
                                                                                ò
                                                                                                                                                                ò
                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

```
276 AAGCGGTGGAGCATGTGGTTTTGATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGGAAGAACCTTACCTGGTCTTGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         216 GACCGCCTGGGGAGTACGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  866 GACCGCCTGGGGAGTACGCCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-07-923-871C-13

Sequence 13, Application US/07923871C

Patent No. 2912117

GENERAL INFORMATION:

APPLICANT: White Ph.D, Thomas J.

APPLICANT: Dodge, Deborah B.

TITLE OF INVENTION: Method for Diagnosis of Lyme Disease

NUMBER OF SEQUENCES: 38

CORRESPONDENCE ADDRESS:

ADDRESSEE: Hoffmann-La Roche Inc.
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US91/01574
FILING DATE: 19910307
CLASSIPICATION BATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US 489,676
FILING DATE: 07-MAR-1990
ATTORNEY/AGENT INFORMATION:
NAME: KASTET Novie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/923,871C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4.5e-53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7.9%; Score 121; DB 5;
100.0%; Pred. No. 4.5e-53
cive 0; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET: 340 Kingsland Street CITY: Nutley STATE: NJ
                                                                                                                                                                                                                                                                                                        2536.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
CLASSIFICATION 435
PRICA APPLICATION DATA:
APPLICATION NUMBER: US 489,676
                                                                                                                                                                                                                                                      NAME: Kaster, Kevin R.
REGISTRATION NUMBER: 32,704
REFERENCE/DOCKET NUMBER: 2536
TELECOMMUNICATION INFORMATION:
TELEPAX: (415) 658-5239
TELEX: 4992659
INFORMATION FOR SEQ ID NO: 13:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 881 base pairs
TYPE: NUCLEIC ACID
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 100.0
Matches 121; Conservative
```

985

```
Sequence 158, Application US/08757553
Patent No. 5843669
GENERAL INFORMATION:
APPLICANT: Kaiser, Michael W.
APPLICANT: Lyamichev, Victor I.
APPLICANT: Lyamichev, Natasha
                                                                                                                                                                                                                                                                                                      ORGANISM: Escherichia coli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE: rRNA ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             986 T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     :
1997 U 997
                                                                                                                                                                                                                                                                                       Ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-757-653-158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-114-695A-1
                                                                                                                                                                                                                                                                                       STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC 925
                                                                                                                                                                                                                                                                                                                                                                                                                                                    216 GACCGCCTGGGGGGTACGGCCGCAGGTTAAAACTCAAATTGACGGGGGCCCGCAC 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         857 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC 916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            917 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA
                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1487;
                                                                                                                                                                                                                                                                                                                                                        Length 882;
                                                                                                                                                                                                                                                                                                                                                                                             0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7.9%; Score 121; DB 4; Length 14 ilarity 100.0%; Pred. No. 4.4e-53; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: Antisense Antibacterial Method and TITLE OF INVENTION: Composition FILLE OF INVENTION: Composition FILLE EFFERENCE: 0450-0032.30 CURRENT FILLING DATE: 2000-11-29 FRIOR APPLICATION NUMBER: US 60/168,150 FRIOR PILLING DATE: 1999-11-29 NUMBER OF SEQ ID NOS: 139

SOFTWARE: FRAESEQ for Windows Version 4.0 SEQ ID NO 14

LENGTH: 1487
                                                                                                                                                                                                                                                                                                                                                        7.9%; Score 121; DB 2; 1
100.0%; Pred. No. 4.5e-53;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 14, Application US/09726774
Patent No. 6677153
GENERAL INFORMATION:
FILING DATE: 07-MAR-1990
ATTORNEY/AGENT INFORMATION:
NAME: PELTY, DOUGLAS.
REGISTRATION NUMBER: 35,321
                                                                    REFERENCE/DOCKET NUMBER: 86
TELECOMMUNICATION INFORMATION:
TELEPHONE: (510) 814-2974
TELEPAX: (510) 814-2977
                                                                                                                                                                                                                                                TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; TYPE: DNA
; ORGANISM: Shigella dysenterae
US-09-726-774-14
                                                                                                                                       TELEX:
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 882 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                        Query Match 7.9% Best Local Similarity 100.0 Matches 121; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                      ANTI-SENSE: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          T 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           986 T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             T 977
                                                                                                                                                                                                                                                                                                                   US-07-923-871C-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 5
US-09-726-774-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

```
926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
Sequence 1, Application US/08114695A
Patent No. 5508193
GENERAL INFORMATION:
APPLICANT: Mandelbaum, Raphael T.
APPLICANT: Mackett, Lawrence P.
TITLE OF INVENTION: DEGRADATION OF S-TRIAZINES IN SOIL AND TITLE OF INVENTION: WATER
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSES: SCHWEGMAN, LUNDBERG & WOESSNER, P.A.
STREET: 3500 IDS CENTER
CITY: MINNEAPOLIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 7.9%; Score 121; DB 1; Length 1542; Best Local Similarity 80.2%; Pred. No. 4.4e-53; Matches 97; Conservative 24; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLUW .....
COMPUTER: IBM PC_compatible
OPERATING SYSTEM: PC_DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/114,695A
FILING DATE: 31-AUG-1993
CLASSIPICATION: 435
ATTORNEY AGENT INPORMATION:
NAME: MUETING, ANN M.
REGISTRATION NUMBER: 600.268US1
FELECOMMUNICATION INPORMATION:
TELECOMMUNICATION INPORMATION:
TELECOMMUNICATION INPORMATION:
TELECOMMUNICATION INPORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: Cleavage Of Nucleic Acid Using
TITLE OF INVENTION: Thermostable FEN-1 Endonucleases
```

```
866 GACCGCCTGGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC 925
                                                                                                                                                                                                                                                                                936
                                                                                                                                                                                                                                                                                                                                            926 AAGCGGTGGAGCATGTGGTTTAATTTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA
                                                                                                                                                                                                                                        866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Gaps
                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1542;
                                                                                                                                                               Length 1542;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: BROW, MARY ANN D.
APPLICANT: LYAMICHEV, VICTOR I.
APPLICANT: LYAMICHEV, VICTOR I.
TITLE OF INVENTION: PATHOGENS
NUMBER OF SEQUENCES:
ADDRESSEE: MEDLES & CARROLL
                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE: Floppy disk
MEDIUM TYPE: Floppy disk
COMPUTER: ISM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4.4e-53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7.9%; Score 121; DB 3;
100.0%; Pred. No. 4.4e-53
                                                                                                                                                               7.9%; Score 121; DB 3;
80.2%; Pred. No. 4.4e-53;
tive 24; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUDRESSEE: MEDLEN & CARROLL STREET: 220 MONTGOMERY STREET, SUITE 2200 STATE: SAN FRANCISCO STATE: CALIFORNT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY AGENT INFORMATION:
NAME: CARROLL, FETER G.
REGISTRATION NUMBER: 32,837
REFERENCE/DOCKET NUMBER: FORS-01756
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/08/520,946 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STATE: CALIFORNIA COUNTRY: UNITED STATES OF AMERICA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 158, Application US/08520946
Patent No. 6372424
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (415) 705-8410
NUMBER OF SEQ ID NOS: 37
SOFTWARE: Patentin version 3.0
SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (415) 397-8338
INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1542 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 100.<sup>1</sup>
Matches 121; Conservative
                                                                                                                                                               Query Match
Best Local Similarity 80.2*
Matches 97; Conservative
                                                                                   TYPE: RNA
, ORGANISM: Escherichia coli
US-09-465-355-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: 11 MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                           986 T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                 997 U 997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                94104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-520-946-158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-520-946-158
                                                                   LENGTH: 1542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                   5
C
                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Karn, Jonathan
APPLICANT: Knowles, David
APPLICANT: Knowles, David
APPLICANT: Murchie, Alastair
APPLICANT: Lentzen, Georg
TITLE OF INVENTION: Methods and Kits for Discovery of RNA-Binding Antimicrobials
FILE REPERENCE: 22620/1150 (Formerly 3950/85276)
CURRENT APPLICATION NUMBER: US/09/465,355
CURRENT APPLICATION NUMBER: 03/125,601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCGCAC 925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            877 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGGCCCGCAC 936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1542;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Indels
                                                                                                                                                                                      MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 121; DB 2; I
Pred. No. 4.4e-53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7.9%; Scc...
100.0%; Pred. No....
0; Mismatches
                                                  ADDRESSEE: Medlen & Carroll, L. Suite 2200 STREET: 220 Montgomery Street, Suite 2200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: US 09/325,601
PRIOR FILING DATE: 1999-06-03
PRIOR FILING DATE: 1999-06-03
PRIOR FILING DATE: 1998-06-05
PRIOR PLICATION NUMBER: GB 9904790.4
PRIOR PILING DATE: 1999-03-02
PRIOR PLING DATE: 1999-03-02
PRIOR FILING DATE: 1999-03-02
PRIOR FILING DATE: 1999-03-02
PRIOR FILING DATE: 1999-03-02
PRIOR FILING DATE: 1999-03-02
                                                                                                                                                                                                                                                                                                                                                                                                                    FORS-02565
                                                                                                                                   United States Of America
              NUMBER OF SEQUENCES: 190
CORRESPONDENCE ADDRESS:
ADDRESSEE: Medlen & Carroll, LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 2, Application US/09465355
Patent No. 6316194
                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Ingolia, Diane E.
REGISTRATION NUMBER: 40,027
REPERSINCE/ORGET NUMBER: FORS.
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 705-8410
INFORMATION: (415) 397-8338
INFORMATION CR SEQ ID NO: 158:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: linear MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 1542 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                  ZIP: 94104
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                San Francisco
California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity
Matches 121; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             † 997
                                                                                                                                                                                                                                                                                                                   FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-757-653-158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-465-355-2
                                                                                                                                   COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
```

g ð

```
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                            866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCCGCAC 925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  937 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTTGGCA 996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
0
                                                                                                                                                                                                                                                                                                APPLICANT: BROW, MARY ANN D.
LYAMICHEV, VICTOR I.
OLIVE, DAVID M.
TITLE OF INVENTION: RAFID DETECTION AND IDENTIFICATION OF
PATHOGENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7.9%; Score 121; DB 4; Length 1542; 100.0%; Pred. No. 4.4e-53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Pred. No. 4.4e-53;
iive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: FLOPPY disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: MEDLEN & CARROLL
STREET: 220 MONTGOMERY STREET, SUITE 2200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: CARROLL, PETER G.
REGISTRATION NUMBER: 32,837
REFERENCE, DOCKET NUMBER: FORS-01756
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 705-8410
TELEFAX: (415) 397-8338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/655,378A
FILING DATE: 05-58p-2000
CLASSIFICATION: <u >unknown>
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: UNITED STATES OF AMERICA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
; SEQUENCE DESCRIPTION: SEQ ID NO: 158:
US-09-655-378A-158
                                                                                                                                                                                                                                             Sequence 158, Application US/09655378A Patent No. 6673616 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 1542 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: 158:
                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCES: 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 10
CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE: CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches 121; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                        T 986
                                                                                                                                                           997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              986 T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  997
                                                                                                                                                                                                                               US-09-655-378A-158
                                                                                                                                                           H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                - [-
                                                      926
                                                                                                                          986
                                                                                                                                                           166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local
                                                                                     g
                                                                                                                        ઠે
                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

```
Sequence 33, Application US/0954899BE
Patent No. 6797817
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: ELT. DUDONT DE NEMOURS & COMPANY, INC.
APPLICANT: BERROLE, RICHARD C.
APPLICANT: HENDRICKSON, EDWIN
TITLE OF INVENTION: UNCLEIC ACID FRAGMENTS FOR THE IDENTIFICATION OF DECHLORINATING R.
TITLE REFERENCE: BC1002 US NA
CURRENT APPLICATION NUMBER: US/09/548,998E
CURRENT FILING DATE: 1999-04-14
PRIOR PILING DATE: 1999-04-15
NUMBER OF SEQ ID NOS: 60
SOFTWARE: Patent In version 3.1
SEQ ID NO 33.1
LENGTH: 1542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       877 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCCGCAC 936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    926 AAGCGCTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               937 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACCGCCTGGGGGAGTACGGCCGCAAGGTTAAAAACTCAAATGAATTGACGGGGGCCCGGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 89, Application US/09492709A
Patent No. 6720139
REMERAL INFORMATION:
APPLICANT: Zyskind, Judith
APPLICANT: Trawick, John
APPLICANT: Trawick, John
APPLICANT: Froelich, Jamie M.
APPLICANT: Froelich, Jamie M.
APPLICANT: Amamoto, Robert T.
APPLICANT: Xu, H. Howard
TITLE OF INVENTION: GENES IDENTIFIED AS REQUIRED FOR PROLIFERATION IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 121; DB 4; Length 1542;
Pred. No. 4.4e-53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1549;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 121; DB 4; I
Pred. No. 4.4e-53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILE REFERENCE: ELITRA.001A
CURRENT APPLICATION NUMBER: US/09/492,709A
CURRENT FILING DATE: 2000-01-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7.9%; Scc.
100.0%; Pred
0; N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7.5. FL. 100.08; FL.
                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Escherichia coli
US-09-548-998E-33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 100.
Matches 121; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               986 T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         997 T 997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; TYPE: DNA
; ORGANISM: E. C
US-09-492-709A-89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Simi:
Matches 121; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-492-709A-89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Fa
SEQ ID NO 89
LENGTH: 154
                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
```

```
LENGTH: 1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 15
US-09-726-774-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             926 AAGCGGTGGAGCATGTGGTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCGCAC 925
926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACCGCCTGGGGAGTACGGCCGCAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC 937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       938 AAGCGGIGGAGCAIGIGGTITAATICGAIGCAACGCGAAGAACCTIACCIGGTCTIGACA 997
                                          938 AAGCGGTGGAGCATGTGGGTTTAATTCGATGCAACGGGAAGAACCTTACCTGGTCTTGACA 997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 402, Application US/09492709A

Sequence 402, Application US/09492709A

Patent No. 6720139

GENERAL INFORMATION:
APPLICANT: Zyskind, Judith
APPLICANT: Trawick, John
APPLICANT: Forelich, Jamie M.
APPLICANT: Trawick, John
APPLICANT: Trawick, John
APPLICANT: Trawick, John
APPLICANT: Trawick, Mamie M.
APPLICANT: Yanamonto, Robert T.
APPLICANT: Yanamonto, Robert T.
APPLICANT: Xu, H. Howard
TITLE OF INVENTION: ESCHERICHIA COLI
TITLE OF INVENTION SCHERE INSOLIATION NUMBER: US/09/492,709A

CURRENT FILING DATE: 2000-01-27

NUMBER OF SEQ ID NOS: 485

SEQ ID NO 402
                                                                                                                                                                                                                                                                                                         APPLICANT: 2yskind, Judith
APPLICANT: 2yskind, Judith
APPLICANT: Trawick, John
APPLICANT: Trawick, John
APPLICANT: Forestick, Jamie M.
APPLICANT: Forestich, Jamie M.
APPLICANT: Carr, Grant J.
APPLICANT: Yamanoto, Robert T.
APPLICANT: Yu, H. Howard
TITLE OF INVENTION: GENES IDENTIFIED AS REQUIRED FOR PROLIFERATION IN
FILE REFERENCE: ELITRA.001A
CURRENT APPLICATION NUMBER: US/09/492, 709A
CURRENT FILING DATE: 2000-01-27
NUMBER OF SEQ ID NOS: 485
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 7.9%; Score 121; DB 4; Length 1549; Best Local Similarity 100.0%; Pred. No. 4.4e-53; Matches 121; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                              Sequence 242, Application US/09492709A Patent No. 6720139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; TYPE: DNA
; ORGANISM: E. COli
US-09-492-709A-242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 T 998
                                                                                                                               T 998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      T 986
                                                                                    986 T 986
                                                                                                                                                                                                   RESULT 13
US-09-492-709A-242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-492-709A-402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 242
                                                                                                                                 966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      986
                                                                                    ò
                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
ò
```

```
932
                                                                                                                                                                                                                                                                                    942
                                                                                                                                                                                       866 GACCGCCTGGGGGGGTAACGCCTTAAAACTCAAATGAATTGACGGGGGCCCGCAC 925
                                                                                                                                                                                                                     878 GACCGCCGGGGGGGGCGCGCAAGGUJAAAACUCAAAUGAAUGAAUGGGGGGCCCGCAC 937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    873 TGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGGCCCGCACAAGCGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               883 TGGGGAGTACGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCACAAGCGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               933 GGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACAT 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          943 GGAGCATCTGGTTTAATTCGATGCAACGCGAAGACCTTACCTGGTCTTGACAT 996
                                                                                                                                            .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ó,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1541;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: IVersen, Patrick L.
TITLE OF INVENTION: Antisense Antibacterial Method and
TITLE OF INVENTION: Composition
FILE REFERENCE: 0450-0032.30
CURRENT PELLORION NUMBER: US/09/726,774
CURRENT PILING DATE: 2000-11.29
PRIOR APPLICATION NUMBER: US 60/168,150
PRIOR FILING DATE: 1999-11-29
NUMBER OF SEQ ID NOS: 139
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 7.5%; Score 114; DB 4; 1
Best Local Similarity 100.0%; Pred. No. 2.1e-49;
Matches 114; Conservative 0; Mismatches 0;
                                                                                             7.9%; Score 121; DB 4;
80.2%; Pred. No. 4.4e-53;
                                                                                                                                            24; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Search completed: April 12, 2005, 14:29:39 Job time : 286 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 2, Application US/09726774 Patent No. 6677153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; TYPE: DNA
; ORGANISM: Salmonella thyphimurium
US-09-726-774-2
                                                                                          Query Match
Best Local Similarity 80.2%
Matches 97; Conservative
; TYPE: RNA
; ORGANISM: E. Coli
US-09-492-709A-402
                                                                                                                                                                                                                                                                                                                                                                                      986 T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                      998 U 998
```

```
April 12, 2005, 12:56:39 ; Search time 940 Seconds (without alignments) 9837.835 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                     1 tttgatcatggctccagatt......acctgcggctggatcacctc 1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               '(gnn2_6')ptodata/1/pubpna/USO7_PUBCOMB.seq:*
'(gnn2_6')ptodata/1/pubpna/USO7_NEW_PUB.seq:*
'(gnn2_6')ptodata/1/pubpna/USO6_NEW_PUB.seq:*
'(gnn2_6')ptodata/1/pubpna/USO6_NEW_PUB.seq:*
'(gnn2_6')ptodata/1/pubpna/USO8_PUBCOMB.seq:*
'(gnn2_6')ptodata/1/pubpna/USO8_PUBCOMB.seq:*
'(gnn2_6')ptodata/1/pubpna/USO8_PUBCOMB.seq:*
'(gnn2_6')ptodata/1/pubpna/USO8_PUBCOMB.seq:*
'(gnn2_6')ptodata/1/pubpna/USO8_PUBCOMB.seq:*
'(gnn2_6')ptodata/1/pubpna/USO9_PUBCOMB.seq:*
'(gnn2_6')ptodata/1/pubpna/USO1_PUBCOMB.seq:*
'(gnn2_6')ptodata/1/pubpna/USO1_NEW_PUB.seq:*
'(gnn2_6')ptodata/1/pubpna/USO1_NEW_PUB.seq:*
'(gnn2_6')ptodata/1/pubpna/USO1_NEW_PUB.seq:*
'(gnn2_6')ptodata/1/pubpna/USO1_NEW_PUB.seq:*
'(gnn2_6')ptodata/1/pubpna/USO1_NEW_PUB.seq:*
'(gnn2_6')ptodata/1/pubpna/USO1_NEW_PUB.seq:*
'(gnn2_6')ptodata/1/pubpna/USO1_NEW_PUB.seq:*
'(gnn2_6')ptodata/1/pubpna/USO1_NEW_PUB.seq:*
'(gnn2_6')ptodata/1/pubpna/USO1_NEW_PUB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11230502
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5615251 segs, 3030001701 residues
                                                                                                                 - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Post-processing: Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                               OLIGO NUC Gaport 60.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                    US-09-979-558A-1
1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                       Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ••
                                                                                                                    OM nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Word size
                                                                                                                                                                                                                                                                                                                                                                     Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Searched:
                                                                                                                                                                                  Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Sequence 41, Appl Sequence 117, Ap Sequence 14, Appl Sequence 3, Appli Sequence 3, Appli Sequence 3, Appli Sequence 7, Appli Sequence 158, Appl Sequence 158, Appl Sequence 158, Appl Description 7 US-10-672-787-41 US-09-991-936-1717 US-09-726-774-14 US-10-719-633-14 US-09-027-439-5 US-09-027-439-3 US-09-027-439-7 US-09-027-439-7 US-09-027-439-7 US-09-941-193A-158 US-09-941-193A-158 SUMMARIES £ 117 110 110 110 110 110 110 Query Match Length DB 1487 1505 1505 1506 1534 1541 1542 1542 269223  $\omega$   $\omega$   $\omega$   $\omega$   $\omega$   $\omega$   $\omega$   $\omega$   $\omega$ Score 136 121 121 121 121 121 121 121 121 2645978931 Result Š.

92017

ö 911

92136 TAACGCAATAAGTAGACCGCCTGGGGAGGTACGCGCAAGGTTAAAACTCAAATGAATTG

g ò

ð ΩD

852 TAACGCAATAAGTAGACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTG

1549 9 US-09-912-020-89 Sequence 1549 9 US-09-912-020-42 Sequence 1549 18 US-09-912-020-402 Sequence 1549 18 US-10-771-241-89 Sequence 1549 18 US-10-771-241-402 Sequence 1549 18 US-10-771-241-412 Sequence 1549 18 US-10-771-241-412 Sequence 1549 18 US-10-612-224-1 Sequence 1541 18 US-10-612-224-3 Sequence 1541 9 US-09-725-5 Sequence 1541 9 US-09-726-774-2 Sequence 1541 18 US-10-90-725-5 Sequence 1541 18 US-10-90-725-5 Sequence 1541 18 US-10-90-725-5 Sequence 1541 18 US-10-90-725-5 Sequence 1541 18 US-10-90-90-90-16 Sequence 1551 19 US-10-90-90-90-16 Sequence 1551 19 US-10-90-90-90-90-90-90-90-90-90-90-90-90-90	2 1830121 17 US-10-329-670-1 Sequence 2 1830121 18 US-10-158-865-1 Sequence 2 1830121 18 US-10-158-865-1 Sequence 2 1830121 18 US-10-158-865-1 Sequence 1 1 1606 16 US-10-278-942-1 Sequence 1 1 1486 9 US-09-777-297-1 Sequence 1 1 1486 9 US-09-777-297-1 Sequence 1 1 1486 9 US-09-777-297-1 Sequence 5 1453 9 US-09-027-439-5 Sequence 5 1481 9 US-09-77-297-4 Sequence 5 1 131 18 US-10-704-751-1 Sequence 2 1 131 18 US-10-704-751-1 Sequence 2 1 1400 9 US-09-737-297-5 Sequence 2 1 1400 9 US-09-737-297-5 Sequence 2 1 1400 9 US-09-737-297-5 Sequence 1 1 1424 14 US-10-007-527A-12 Sequence 1 1 1424 14 US-10-00	tion US/10672787 040067554A1 Robert, E. ON, Chandra im, L. NUCLECTIDE SEQUEN TRA.025C1 NUMBER: US/10/672 TE 2003-09-26 TE 2000-06-16 S: 41 ram a catarrhalis	8.9%; Score 136; DB 17; Length 269223; larity 100.0%; Pred. No. 9e-62; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
121 1221 1221 1221 1221 1221 1221 1221	· / / / / / / / / / / / / / / / / / / /	SULT 1 Sequence 41, Application U Sequence 41, Application U Sublication No. US200400677 APPLICANT: LAGACE, Robert APPLICANT: LAGACE, ROBER APPLICANT: BERG, Kim, L. TITLE OF INVENTION: NUCLE FILE REFERENCE: ELITRA.O.2 CURRENT APPLICATION NUMBER CURRENT APPLICATION NUMBER CURRENT PILING DATE: 2000-00 PRIOR FILING DATE: 2000-00 PRIOR FILING DATE: 2000-00 PRIOR FILING DATE: 2001-00 NUMBER OF SEQ ID NOS: 41 SOFTWARE: PERL PROGRAM SEQ ID NO 41 ELENGTH: 26923 TYPE: DNA ORGANISM: MORAXELIA CATA: -10-672-787-41	h Simi 36;
0 0 0 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2	Ი Ი ᲡᲡᲡᲡᲡᲡᲡᲡᲡᲡᲡᲡᲡᲡᲡᲡᲡᲡ ᲡᲡᲔᲡᲡᲡᲡᲡᲡᲡᲡᲡᲡᲡᲡᲡᲡ	RESULT 1 US-10-672-78 Sequence 4 Sequence 7 Sequence 6 Sequence 6 Sequence 7 Sequence 7 Sequence 7 Sequence 8	Query Matc Best Local Matches 1

```
986 T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       986 T 986
                                                                                                                                                                                                     977 T 977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              977 T 977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JS-09-027-439-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID NO 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                            ò
                                                                                                                   В
                                                                                                                                                                ò
                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                Sequence 1717, Application US/09991936
| Publication No. US20030073827A1 |
| GENERAL INPORMATION: |
| APPLICANT: Brandt, Kevin S. |
| APPLICANT: Gaines, Patrick J. |
| APPLICANT: Gaines, Patrick J. |
| APPLICANT: Wisnewski, Nancy TITLE OF INVENTION: FLEA HEAD NERVE CORD, HINDGUT AND MALPIGHIAN TUBULE |
| TITLE OF INVENTION: FLEA HEAD NERVE CORD, HINDGUT AND USES THEREOF |
| TITLE OF INVENTION: FLEA HEAD NERVE CORD, HINDGUT AND USES THEREOF |
| TITLE OF INVENTION: FLEA HEAD NOUGHER, US/09/991,936 |
| CURRENT APPLICATION NUMBER: US/09/991,936 |
| CURRENT APPLICATION NUMBER: US/09/543,668 |
| PRIOR FILING DATE: 2000-04-07 |
| PRIOR FILING DATE: 1999-04-09 |
| NUMBER OF SEQ ID NOS: 1959 |
| SEQ ID NO 1717 |
| LENGTH: 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               163 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCGCAC 222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCGGAC 925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            223 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7.9%; Score 121; DB 9; Length 1487;
100.0%; Pred. No. 1.3e-53;
cive 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 549;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 14, Application US/09726774

Patent No. US20020082256A1

GENERAL INFORMATION:
APPLICANT: IVersen, Patrick L.
TITLE OF INVENTION: Antisense Antibacterial Method and TITLE OF INVENTION: Composition
FILE REFERENCE: 0450-0032.30

CURRENT APPLICATION NUMBER: US/09/726,774

CURRENT APPLICATION NUMBER: US 60/168,150

PRIOR PILING DATE: 2000-11-29

PRIOR PILING DATE: 1999-11-29

NUMBER OF SEQ ID NOS: 1999-11-29

SOFTWARE: FREESEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7.9%; Score 121; DB 10;
100.0%; Pred. No. 1.4e-53;
iive 0; Mismatches 0;
                          92016 ACCTGGTCTTGACATA 92001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA ORGANISM: Ctenocephalides felis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; TYPE: DNA
; ORGANISM: Shigella dysenterae
US-09-726-774-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 7.9%
Best Local Similarity 100.0
Matches 121; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity 100.
Matches 121; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          T 283
                                                                                                                     US-09-991-936-1717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-991-936-1717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 1487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-726-774-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGAAGAACCTTACCTGGTCTTGACA 985
925
                                                916
                                                                                                                                       917 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 6, Application US/09027439A

Sequence 6, Application US/09027439A

Patent No. US20020006611A1

GENERAL INFORMATION:

APPLICANT: Colwell, Rita R.

APPLICANT: Clowdhury, Afzal

APPLICANT: Chowdhury, Afzal

TITLE OF INVENTION: Shigella Species and Shigella from E. coli Species

FILE REFERENCE: 044198/000

CURRENT APPLICATION NUMBER: US/09/027,439A

CURRENT APPLICATION NUMBER: 60/038,117

EARLIER PILING DATE: 1997-02-20

EARLIER PILING DATE: 1997-02-20

MUMBER OF SEQ ID NOS: 35

SOFTWARE: Patentin Ver. 2.0
                                                857 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGGCCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         926 AAGCGGTGGAGCATGTGGTTTAATTTCGATGCAACGAAGAACCTTACCTGGTCTTGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1487;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                       Sequence 14, Application US/10719633
Sequence 14, Application US/10719633
Fublication No. US2040137485A1
GENERAL INFORMATION:
APPLICANT: IVETEEN. Patrick L.
ITLE OF INVENTION: Antisense Antibacterial Method and TITLE OF INVENTION: Composition
FILE REPRENCE: 0450-0032.30
CURRENT APPLICATION NUMBER: US/10/719,633
CURRENT FILING DATE: 2003-11-21
FRIOR PELING DATE: 2000-11-29
FRIOR APPLICATION NUMBER: US 60/168,150
FRIOR FILING DATE: 1999-11-29
NUMBER OF SEQ ID NOS: 139
SOFTWARE: FastEEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ouery Match
Pest Local Similarity 100.0%; Pred. No. 1.3e-53;
Matches 121; Conservative 0; Mismatches 0;
866 GACCGCCTGGGGAGTACGGCCGCAAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
CRGANISM: Shigella dysenterae
US-10-719-633-14
```

ઠે 임 ઠે g ò 셤

```
869 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  929 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCGCAC 925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        876 GACCGCCTGGGGGGTACGCCGCGAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGGCAC 935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    936 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Portugal, Frank H.
APPLICANT: Colwell, Rita R.
APPLICANT: Colwell, Rita R.
APPLICANT: Colwell, Rita R.
APPLICANT: Colwell, Rita R.
APPLICANT: Chowdhury, Afzal
TITLE OF INVENTION: Compositions and Methods for Differentiating Among
TITLE OF INVENTION: Shigella Species and Shigella from E. coli Species
FILE REFERENCE: 044198/0000
CURRENT APPLICATION NUMBER: US/09/027,439A
CURRENT FILING DATE: 1998-02-20
EARLIER APPLICATION NUMBER: 60/038,117
EARLIER PILING DATE: 1997-02-20
NUMBER OF SEQ ID NOS: 35
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 7
                                                                                                                                                                                                                                                                                                                                                                                                                   866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCAAGAACCTTACCTGGTCTTGACA
                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                         Length 1534;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1541;
                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ouery Match 7.9%; Score 121; DB 9; L Best Local Similarity 100.0%; Pred. No. 1.3e-53; Matches 121; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                         Query Match 7.9%; Score 121; DB 16; Best Local Similarity 100.0%; Pred. No. 1.3e-53; Matches 121; Conservative 0; Mismatches 0;
                                                                                                                                                                          NAME/KEY: modified base LOCATION: (11)...(12)
COTHIN: INFORMATION: N = A, C, G or T/U US-10-029-397A-35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; Sequence 158, Application US/09940925A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 7, Application US/09027439A Patent No. US20020006611A1
                                                                                                    TYPE: DNA ORGANISM: Klebsiella pneumoniae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; ORGANISM: Escherichia coli
US-09-027-439-7
NUMBER OF SEQ ID NOS: 73
                           Patentin Ver.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        986 T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 T 989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        986 T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           T 996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 9
US-09-940-925A-158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 8
US-09-027-439-7
                        SCETWARE: Pa
SEQ ID NO 35
LENGTH: 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           966
                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                        925
                                                                                                                                                                                                                                                        868 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC 927
                                                                                                                                                                                                                                                                                                         926 AAGCGCTGGAGCATGTGGTTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                                                                                                                          928 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATTGAATTGACGGGGCCCGGAC 925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  870 GACCGCCTGGGGGGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGGCCCGCAC 929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    930 AAGCGGTGGACGTGTGGTTTAATTCGATGCAACGGAAGAACCTTACCTGGTCTTGACA 989
                                                                                                                                                                                                     866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Portugal, Frank H.
APPLICANT: Colwell, Rita R.
APPLICANT: Huq, Anwarul
APPLICANT: Clowdhury, Afzal
APPLICANT: Chowdhury, Afzal
TITLE OF INVENTION: Compositions and Methods for Differentiating Among
TITLE OF INVENTION: Shigella Species and Shigella from E. coli Species
FILE REFERENCE: 044198/0000
CURRENT APPLICATION NUMBER: US/09/027,439A
CURRENT FILING DATE: 1998-02-20
EARLIER APPLICATION NUMBER: 60/038,117
EARLIER FILING DATE: 1997-02-20
NUMBER OF SEQ ID NOS: 35
SOFTWARE: PATENTIN Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 35, Application US/10029397A
Publication No. US20030175709A1
GENERAL INFORMATION:
APPLICANT: WIRPHY, GEORGE L.
APPLICANT: WHITLEY, J. PENN
TITLE OF INVENTION: METHOD AND SYSTEM FOR DEPLETING FRNA POPULATIONS
FILE REPERBUCE: AMBI:076US
CURRENT APPLICATION NUMBER: US/10/029,397A
CURRENT FILING DATE: 2002-03-19
                                                                                                                                                    ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                 Length 1505;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1506;
                                                                                              Query Match 7.9%; Score 121; DB 9; Length 15
Best Local Similarity 100.0%; Pred. No. 1.3e-53;
Matches 121; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 7.9%; Score 121; DB 9; Length 15 Best Local Similarity 100.0%; Pred. No. 1.3e-53; Matches 121; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-027-439-3
; Sequence 3, Application US/09027439A
; Patent No. US20020006611A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
ORGANISM: Shigella flexneri
                  ; ORGANISM: Shigella boydii
US-09-027-439-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                             T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 T 988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          986 T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                990 T 990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 7
US-10-029-397A-35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 1506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-027-439-3
                                                                                                                                                                                                                                                                                                                                                                                                                986
```

엄 ઠે 요 ò 셤

```
986 T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         T 997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-941-193A-158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 1542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JS-10-061-071-33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAÇ 925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         877 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGGCCCGCAC 936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     937 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OLIVE, DAVID M.
TITLE OF INVENTION: RAPID DETECTION AND IDENTIFICATION OF PATHOGENS
                                                             OLIVE, DAVID M.
TITLE OF INVENTION: RAPID DETECTION AND IDENTIFICATION OF PATHOGENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1542;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/940,925A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 165
CORRESPONDENCE ADDRESS:
ADDRESSES: MEDLEN & CARROLL
STREET: 220 MONTGOMERY STREET, SUITE 2200
CITY: SAN FRANCISCO
                                                                                                                                                         CORRESPONDENCE ADDRESS:
ADDRESSE: MEDLEN & CARROLL
STREET: 2200 MONTGOMERY STREET, SUITE 2200
CITY: SAN FRANCISCO
STATE: CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
7.9%; Score 121; Do 10; Best Local Similarity 100.0%; Pred. No. 1.36-53; Matches 121; Conservative 0; Mismatches 0; 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
NAME: CARROLL, PETER G.
REGISTRATION NUMBER: 32,837
REFERENCE/DOCKET NUMBER: FORS-01756
TELECOMMUNICATION INFORMATION:
TELEPONE: (415) 705-810
                                                                                                                                                                                                                                                             COUNTRY: UNITED STATES OF AMERICA ZIP: 94104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: DNA (genomic)
SEQUENCE DESCRIPTION: SEQ ID NO: 158:
US-09-940-925A-158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 158, Application US/09941193A Publication No. US20030108873A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BROW, MARY ANN D.
LYAMICHEV, VICTOR I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 10-Jun-2002 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
LENGTH: 1542 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: (415) 397-8338
                  GENERAL INFORMATION:
APPLICANT: BROW, MARY ANN D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INFORMATION FOR SEQ ID NO: 158:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: nucleic acid
STRANDEDNESS: double
US20030054338A1
                                                           LYAMICHEV,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: BROW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       T 997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-941-193A-158
  Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

```
Sequence 33, Application US/10061071

Publication No. US20030077601A1

GENERAL INFORMATION:
APPLICANT: B.1. DUPONT DE NEMOURS & COMPANY
APPLICANT: HENDRICKSON, EDWIN
TITLE OF INVENTION: NUCLEIC ACID FRAGMENTS FOR THE IDENTIFICATION OF DECHLORINATING
TITLE OF INVENTION: BACTERIA
FILE REPERBACE: BC1002 US CIP
CURRENT FILIATION NUMBER: US/10/061,071
CURRENT PILIATION NUMBER: US 60/129,511
PRIOR APPLICATION NUMBER: US 60/129,511
PRIOR APPLICATION NUMBER: 60/129,511
PRIOR APPLICATION NUMBER: 60/129,511
PRIOR PILING DATE: 1999-04-15
NUMBER OF SEQ ID NOS: 103
SOFTWARE: MICROSOFT OFFICE 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    937 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        866 GACCGCCTGGGGGGTACGCCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1542;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1542;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7.9%; Score 121; DB 14;
100.0%; Pred. No. 1.3e-53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7.9%; Score 121; DB 10;
100.0%; Pred. No. 1.3e-53;
                                                                                                                                                                                                                                                                                       ATTOREY/AGENT INFORMATION:
NAME: CARROLL, PETER G.
REGISTRATION NUMBER: 32,837
REGISTRENCE/DOCKET NUMBER: FORS-01756
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 705-8410
                                                                                                                                                                                                                 APPLICATION NUMBER: US/09/941,193A
FILING DATE: 28-Aug-2001
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 7.9%; Score 121; DB Best Local Similarity 100.0%; Pred. No. 1.3 Matches 121; Conservative 0; Mismatches
STATE: CALIFORNIA
COUNTRY: UNITED STATES OF AMERICA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
SEQUENCE DESCRIPTION: SEQ ID NO: 158:
                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE: (415) 705-84:
TELEFAX: (415) 397-8338
INFORMATION FOR SEQ ID NO: 158:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 1542 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: nucleic acid
STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 100.0
Matches 121; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA; ORGANISM: Escherichia coli
US-10-061-071-33
```

유 ð d ઠે 엄

ઠે

```
878 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCGCAC 937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GACCGCCUGGGGAGUACGCCCCCAAGGUUAAAACUCAAAUGAAAUUGACGGGGGCCCCGCAC 937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 402, Application US/09912020

| Sequence 402, Application US/09912020
| Patent No. US20020045592A1
| GENERAL INFORMATION:
| APPLICANT: Zyskind, Judith
| APPLICANT: Trawick, John
| APPLICANT: Freelich, Jamie M. APPLICANT: Proselich, Jamie M. APPLICANT: Carr, Grant J. APPLICANT: Yamamoto, Robert T. TITLE OF INVENTION: ESCHERICHIA COLI |
| FILE REFERENCE: ELITRA.OIDID11
| FILE REPERENCE: ELITRA.OIDID11
| CURRENT APPLICATION NUMBER: US/09/912,020
| CURRENT PILING DATE: 2001-07-23
| PRIOR FILING DATE: 2000-01-27
| PRIOR FILING DATE: 1999-01-27
| PRIOR FILING DATE: 1999-01-27
| SEQ ID NOS: 485
| SOFTWARE: FastSEQ for Windows Version 3.0
| SEQ ID NOS - 485
| LEMARM: 1-20
APPLICANT: Xu, H. Howard

TITLE OF INVENTION: GENES IDENTIFIED AS REQUIRED FOR PROLIFERATION IN

TITLE OF INVENTION: ESCHERICHIA COLI
FILE REPERENCE: ELITRA.OIDUDU

CURRENT APPLICATION NUMBER: US/09/912,020

CURRENT PILING DATE: 2001-07-23

PRIOR RAPLICATION NUMBER: 09/492,709

PRIOR FILING DATE: 1999-01-27

NUMBER: 60/117,405

PRIOR FILING DATE: 1999-01-27

NUMBER: PASCA ID NOS: 485

SOFTWARE: FASCESQ for Windows Version 3.0

SEQ ID NO 242

LENGTH: 1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 7.9%; Score 121; DB 9; Length 1549; Best Local Similarity 100.0%; Pred. No. 1.3e-53; Matches 121; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7.9%; Score 121; DB 9; Length 1549; 80.2%; Pred. No. 1.3e-53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity
Matches 97; Conserv
                                                                                                                                                                                                                                                                                                                                                                                     ; TYPE: DNA
; ORGANISM: E. Coli
US-09-912-020-242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   986 T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    T 998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-912-020-402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: RNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                              AAGCGGTGGAGCATGTGGTTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              878 GACCGCCTGGGGGGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC 937
                                                                                                                                                                                             937 AAGCGGIGGAGCAIGIGGIIITAAIICGAIGCAACGCGAAGAACCIIACCIGGICTIIGACA 996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  866 GACCGCCTGGGGGGGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCGCAC 925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           926 AAGCGGIGGAGCAIGIGGITITAATICGAIGCAACGCGAAGAACTITACCIGGICTIGACA 985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         938 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INTERMATION:
GENERAL INTERMATION:
GENERAL INTERMATION:
APPLICANT: Zyskind, Judith
APPLICANT: Ohlsen, Kari L.
APPLICANT: Trawick, John
APPLICANT: Froelich, Jamie M.
APPLICANT: Froelich, Jamie M.
APPLICANT: Yamamoto, Robert T.
APPLICANT: Vanamoto, Robert T.
APPLICANT: Xu, H. Howard
ITILE OF INVENTION: ESCHERICHIA COLI
ITILE OF INVENTION UNMBER: US/09/912,020
CURRENT FILING DATE: 2000-01-07-23
PRIOR APPLICATION NUMBER: 60/117,405
PRIOR APPLICATION NUMBER: 60/117,405
PRIOR PLING DATE: 1999-01-27
NUMBER OF SEQ ID NOS: 485
SOFTWARE: FASTSEQ for Windows Version 3.0
                                                                                          877 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1549;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7.9%; Score 121; DB 9; 1
100.0%; Pred. No. 1.3e-53;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 242, Application US/09912020
Patent No. US20020045592A1
GENERAL INFORMATION:
APPLICANT: Zyskind, Judith
APPLICANT: Trawick, John
APPLICANT: Frosich, Jamie M.
APPLICANT: Frosich, Jamie M.
APPLICANT: Frosich, Jamie M.
APPLICANT: Yamamoto, Robert T.
                                                                                                                                                                                                                                                                                                                                                                                                                                      ; Sequence 89, Application US/09912020
; Patent No. US20020045592A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                al Similarity
121; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        , ORGANISM: E. Coli
US-09-912-020-89
                                                                                                                                                                                                                                                    T 986
                                                                                                                                                                                                                                                                                                        T 997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             986 T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 998 T 998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 13
US-09-912-020-242
                                                                                                                                                                                                                                                                                                                                                                                                                US-09-912-020-89
                                         998
                                                                                                                                              926
                                                                                                                                                                                                                                                      986
                                                                                                                                                                                                                                                                                                        997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Loca
Matches
```

g

ò

g ò

```
866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCGCAC 925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             878 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC 937
926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                 938 AAGCGGUGGAGCAUGUGGUUAAUUCGAUGCAACGCGAAGAACCCUUACCUUGACA 997
                                                                                                                                                            RESULT 15
US-10-771-241-89
i Sequence 89, Application US/10771241
j Publication No. US20040241715A1
j GENERAL INFORMATION:
APPLICANT: Z9skind, Judith
APPLICANT: Z9skind, Judith
TITLE OF INVENTION: ESCHERICHIA COLI
FILE REPERENCE: ELIFRA.010C1
CURRENT APPLICATION NUMBER: US/10/771,241
CURRENT FILING DATE: 2004-02-03
PRIOR APPLICATION NUMBER: 609492,709
PRIOR PPLICATION NUMBER: 60/117,405
PRIOR PPLICATION NUMBER: 60/117,405
NUMBER OF SEQ ID NOS: 485
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 1549;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
7.9%; Score 121; DB 18;
Best Local Similarity 100.0%; Pred. No. 1.3e-53;
Matches 121; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Search completed: April 12, 2005, 16:38:15 Job time : 948 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; TYPE: DNA
; ORGANISM: E. Coli
US-10-771-241-89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 998 T 998
                                                                       986 T 986
                                                                                                :
866 U 866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            986 T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 89
LENGTH: 1549
                               g
                                                                         ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

msh2 4950 MR2-TT001 SA1 2 B04 MEST162-A

MEST169-F MEST286-B

S EST260118 EST396811

780B5

BZ566538 BWS76476 BWS36476 CD423957 BW332457 BW332457 BW332458 BW332457 BW34779239 BF204135 AW600903 CK290947 CK290947 CK296497 BI74429 BI74429

3B5 cDNA EST753661

EST743250

EM1 66 E0 pac 2-164

BZ560750

pb07a06.y EST759211

OM nucleic

Run on:

```
OSTRI2964_1 AD-wrmcDNA Caenorhabditis elegans cDNA, mRNA sequence. CB393967_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /sex="Hermaphrodite and male"
/tissue_type="whole animal"
/tissue_type="whole animal"
/dev stage="mixed stage"
/clonellb="AD-wrmcDNA"
/note="The AD-wrmcDNA library was generated with poly(A) +
RNA isolated from both hermaphrodite and male N2 worms of
all larval stages, embryos, adults and dauers and the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: Marc_Vidal@dfci.harvard.edu
Sequence tag of Gateway entry clones. The primers used were
designed on the predicted protein encoding ORF. C. elegans ORFeome
cloning project : Contact david_hill@dfci.harvard.edu or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 (bases 1 to 247)

Reboul, J., Vaglio, P., Rual, J.F., Lamesch, P., Martinez, M.,

Armstrong, C.M., Li, S., Jacotot, L., Bertin, N., Janky, R., Moore, T.,

Hudson, J.R., Hartley, J.L., Brasch, M.A., Vandenhaute, J., Boulton, S.

Endress, G.A., Jenna, S., Chevet, E., Papasotiropoulos, V.,

Tolias, P.P., Peacek, J., Snyder, M., Huang, R., Chance, M.R., Lee, H.,

Doucette-Stamm, L., Hill, D.E. and Vidal, M.

C. elegans ORFeome version 1.1: experimental verification of the
genome annotation and resource for proteome-scale protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Caenorhabditis elegans
Bukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida;
Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Nat. Genet. (2003) In press
Conteact: Vidal M
Marc Vidal Laboratory
Dana Farber Cancer Institute
1 Jimmy Fund Way Smith 858, BOSTON, MA 02115, USA
Far: 617 632 5180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        organism="Caenorhabditis elegans"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ALIGNMENTS
                            BZ566539
BZ576668
BZ576476
AW834377
CD423357
BM3324875
BM3324875
BM348070
BM348070
AI779239
BE204135
                                                                                                                                                                                                                                                                                                                                                                                                      CK280528
CK280527
CK296497
BI744294
BG556089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          db xref="taxon:6239"
                                                                                                                                                                                                                                                                                                                                                   AW600903
CK290947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cloning project : Contact dr
marc vidal@dfci.harvard.edu
POLYA=No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /mol_type="mRNA"
/strain="N2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CB393967.1 GI:30735678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Caenorhabditis elegans
735
1010
10068
12005
1507
184
184
521
552
553
560
660
660
660
881
941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      expression
  \begin{smallmatrix} & & & & & & & & \\ & & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CB393967
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
  000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BH822044 BACPELT-A
GF33225 RCL1--04-
AG019018 Homo sapi
BQ155671 NF022A121
BH818000 BACPPLO-X
BH822078 BACPPLT-E
BH833826 BACPPL-D
CF333842 RCL1--06-
BH820342 BACPLT-E
                                                                                                                                                                                April 12, 2005, 10:39:14 ; Search time 5290 Seconds (without alignments) 10980.354 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OV2 31 C0
BACPP33-C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AU312474
EST336183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1115025D0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SWOVMECAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CB393967 OSTR129G4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BACPP9-A0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BACPP24-C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P048-4-G0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Escherich
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1115107G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRI0151b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                1 tttgatcatggctccagatt.......acctgcggctggatcacctc 1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CF566443 1 CF557211 1 CL689507 E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BG357866 (BH831257 )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BE427965 1
AU312474 1
BE187622 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BH819649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BH826849
                         GenCore version 5.1.6
(c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 34239544 segs, 19032134700 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   summaries
                                                                                                                              - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BH822044
CF339295
AG019018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BQ152671
BQ152671
BH818000
BH822078
BH833826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CF566443
CF557211
CL689507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CF339842
BH820342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AU312474
BE187622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CG753740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CB393967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BH831257
                                                                                                                                                                                                                                                                                                                                                                                                                                  Gapop_60.0 , Gapext 60.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Post-processing: Listing first 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                              US-09-979-558A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gb_est1:;
gb_htc::;
gb_est4::;
gb_est4::;
gb_gs81:;;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                *OLIGO*NUC*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EST:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1121
1221
1221
1221
1221
1221
1221
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1231
1
```

Database :

O

Result

Word size

Searched:

Sequence:

```
BG357866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  986 T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 340 T 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Simi
Matches 121;
                                                                                                                          GSS
             RESULT 3
BH835798
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                      REFERENCE
AUTHORS
                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AUTHORS
                                                                                                           VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BG357866
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                       TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                     GSS 20-MAY-2002
                                                                                                                                              64 GACCGCCTGGGGGGGTACGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCGCAC 123
                                                                                                                                                                                          AAGCGGTGGAGCATGTGGTTTAATTTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC 925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               223 GACCGCCTGGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC 282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         283 AAGCGGTGGACATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 342
                                                                                                                                                                                                           Eukaryota; Metazoa; Nematoda; Chromadorea; Diplogasterida;
Neodiplogasteridae; Pristionchus.
1 (bases 1 to 394)
Srinivasan,J., Sinz,W., Lanz,C., Brand,A., Nandakumar,R.,
Raddatz,G., Witte,H., Keller,H., Kipping,I., Pires da Silva,A.,
Jesse,T., Millare,J., de Both,M., Schuster,S.C. and Sommer,R.J.
A BAC-based genetic linkage map of the nematode Pristionchus
subsequent generation of cDNAs by poly(A) priming. The cDNAs were cloned into pPC86"
                                                                                                                             866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATTGAATTGACGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                BH819649
BACPP13-M12.y Pristionchus pacificus BAC ends Pristionchus pacificus genomic, genomic survey sequence.
                                                                                               ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /mol_type="genomic DNA"
|srrafin="ver. California"
| Ab xref="texon:54126"
|clone_lib="Pristionchus pacificus BAC ends"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7.9%; Score 121; DB 8; Length 394;
100.0%; Pred. No. 2.3e-56;
ive 0; Mismatches 0; Indels
                                                             Length 247;
                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Sommer RJ
Evolutionary Biology
Max-Planck-Institute for Developmental Biology
Speannetr. 37-39, Tuebingen D-72076, Germany
Tel: 00497071601371

    .394
    /organism="Pristionchus pacificus"

                                                             Query Match 7.9%; Score 121; DB 6; L Best Local Similarity 100.0%; Pred. No. 2.3e-56; Matches 121; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: ralf.sommer@tuebingen.mpg.de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                    BH819649.1 GI:20993980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pristionchus pacificus
Pristionchus pacificus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Fax: 00497071601498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           pacificus
Unpublished (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Class: BAC ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                     3H819649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     T 343
                                                                                                                                                                                                                                                         T 986
                                                                                                                                                                                                                                                                                         T 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Simil
Matches 121; C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         986
                                                                                                                                                                                                                                                         986
                                                                                                                                                                                                                                                                                         184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       343
                                                                                                                                                                                          926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         source
                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                     RESULT 2
BH819649
                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                  DRIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                         d
                                                                                                                                                                                          ò
                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
```

```
BUSDEVENS 465 bp mRNA linear BST 06-MAR-2001 OV2 31 C04.bl A002 Ovary 2 (OV2) Sorghum bicolor CDNA, mRNA sequence.
BH835798 17.2 Pristionchus pacificus BAC ends Pristionchus pacificus Gendonic, genomic survey sequence.
BH835798.1 GI:21038085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             220 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD calde; Panicoideae; Andropogoneae; Sorghum.

1 (bases 1 to 465)
Cordonnier-Pratt, M.-M., Gingle, A., Marsala, C., Sudman, M. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     280 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pratt,L.H.
An EST database from Sorghum: ovaries of varying immature stages
Unpublished (2000)
Contact: Cordonnier-Pratt MM
                                                                                                                                                                                                           Pristionchus pacificus
Eukaryota; Metazoa; Nematoda; Chromadorea; Diplogasterida;
Neodiplogasteridae; Pristionchus.
1 (Dases 1 to 437)
Srinivasan, J., Sinz, W., Lanz, C., Brand, A., Nandakumar, R.,
Raddatz, G., Witte, H., Keller, H., Kipping, I., Pires da Silva, A.,
Jesse, T., Millare, J., de Both, M., Schuster, S.C. and Sommer, R.J.
A BAC-based genetic linkage map of the nematode Pristionchus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 437;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Evolutionary Biology
Max-Planck-Institute for Developmental Biology
Max-Planck-Institute for Developmental Biology
Telsonannstr. 37-39, Tuebingen D-72076, Germany
Tels 00497071601371
Fax: 00497071601498
Email: ralf.sommer@tuebingen.mpg.de
Class: BAC ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       organism="Pristionchus pacificus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      h 7.9%; Score 121; DB 8; L
Similarity 100.0%; Pred. No. 2.3e-56;
21; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sorghum bicolor (sorghum)
Sorghum bicolor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BG357866.1 GI:13239852
                                                                                                                                                                                        Pristionchus pacificus
                                                                                                                                                                                                                                                                                                                                                                                                                                                       pacificus
Unpublished (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Sommer RJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1. .437
```

ô

985

```
GSS 20-MAY-2002
                                                                                                                                                                         223 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC 282
                                                                                                                                                                                                                                              283 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGGAAGAACCTTACCTGGTCTTGACA 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        220 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           280 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 (bases 1 to 522)
Srinivasan, J., Sinz, W., Lanz, C., Brand, A., Nandakumar, R.,
Raddatz, G., Witte, H., Keller, H., Kipping, I., Pires da Silva, A.,
Jesse, T., Millare, J., de Both, M., Schuster, S.C. and Sommer, R.J.
A BAC-based genetic linkage map of the nematode Pristionchus
                                                                                                                                   866 GACCGCCTGGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC
                                                                                                                                                                                                                     926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGAAGAACCTTACCTGGTCTTGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC
                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                      BH826849 1near GSS 20.
BACPP24-C20.z Pristionchus pacificus BAC ends Pristionchus pacificus genomic, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Nematoda; Chromadorea; Diplogasterida;
Neodiplogasteridae; Pristionchus.
                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Pristionchus pacificus"
/mol type="genomic DNA"
/straf="razon:54126"
/db xref="taxon:54126"
/clone_lib="Pristionchus pacificus BAC ends"
                                                   Length 473;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 522;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Max-Planck-Institute for Developmental Biology Spemannstr. 37-39, Tuebingen D-72076, Germany Tel: 00497071601371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7.9%; Score 121; DB 8; L 100.0%; Pred. No. 2.4e-56; tive 0; Mismatches 0;
                                                7.9%; Score 121; DB 8; 100.0%; Pred. No. 2.3e-56; iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: ralf.sommer@tuebingen.mpg.de Class: BAC ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BH826849.1 GI:21019674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pristionchus pacificus
Pristionchus pacificus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Evolutionary Biology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fax: 00497071601498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Sommer RJ
                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unpublished (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BH826849
                                                                                                                                                                                                                                                                                                       T 986
                                                                                                                                                                                                                                                                                                                                                  T 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       986 T 986
                                                Query Match
Best Local Simi:
Matches 121;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Simil
Matches 121; (
                                                                                                                                                                                                                                                                                                          986
                                                                                                                                                                                                                                                                                                                                                    343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 6
BH826849
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT
                                                                                                                                                                         8
                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                   /clone lib="Ovary 2 (OV2)"
/note="Organ: Mix of ovaries of varying immature stages
/note="Organ: Mix of ovaries of varying immature stages
from 8-week-old plants; vector: pBluescript II from Lambda
Zap II; Site 1: Xhol; Site 2: EcoRI; The library was made
from poly-A RNA in the cloning vector lambda ZAP II.
Clones to be sequenced were prepared by mass excision."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           198 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC 257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Srinivasan, J., Sinz, W., Lanz, C., Brand, A., Nandakumar, R., Raddatz, G., Witte, H., Keller, H., Kipping, I., Pires da Silva, A., Jesse, T., Millare, J., de Both, M., Schuster, S.C. and Sommer, R.J. A BAC-based genetic linkage map of the nematode Pristionchus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACCGCCTGGGGAGTACGCCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGCGGTGGAGCATGTGGTTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BH811257
BACPP33-C16.y Pristionchus pacificus BAC ends Pristionchus pacificus genomic, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pristionchus pacificus
Pristionchus pacificus
Eukaryota, Metazoa, Nematoda, Chromadorea, Diplogasterida,
Neodiplogasteridas, Pristionchus.
Laboratory for Genomics and Bioinformatics
The University of Georgia, Department of Plant Biology
Plant Sciences Building, Rm. 2502, Athens, GA 30602-7271,
Tel: 706 542 180
Fax: 706 583 0210
Fax: 706 583 0210
Sea primer: JEN REV
High quality sequence stop: 463
POLYA=No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone_lib="Pristionchus pacificus BAC ends"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 465;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Evolutionary Biology
Max-Planck-Institute for Developmental Biology
Spemannstr. 37-39, Tuebingen D-72076, Germany
Tel: 00497071601371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Pristionchus pacificus"
/mol_type="genomic DNA"
/strain="var. California"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7.9%; Score 121; DB 4; L. llarity 100.0%; Pred. No. 2.3e-56; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                       organism="Sorghum bicolor"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: ralf.sommer@tuebingen.mpg.de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'db_xref="taxon:54126"
                                                                                                                                                                                                                                                             /mol_type="mRNA"
/db_xref="taxon:4558"
                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BH831257.1 GI:21028759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Fax: 00497071601498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unpublished (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Sommer RJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .473
                                                                                                                                                                                                                     .465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Class: BAC ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               pacificus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               T 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches 121;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 5
BH831257
                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
```

g

g ò

ò

ö

925

6

ö

Gaps , 318 985

925

'n

```
AG019018 592 bp DNA linear GSS 09-JAN-2003
Homo sapiens genomic DNA, 21q region, clone: B753B2BB067R, genomic
                                                                                                                                                                                                       /organism="Oryza sativa (japonica cultivar-group)"
/mol type="maRNA"
/mol type="maRNA"
/do xref="taxon:39947"
/clone="RCL1--04-G22"
/tissue_type="callus"
/dow_tatge="proliserated callus on 2N6 media for 30 days"
/lab_host="E.coli SoLR"
/clone_lib="Regenerated callus lambda phage cDNA library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         119 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hattori,M., Fujiyama,A., Ishii,K., Toyoda,A., Taylor,T.,
Park,H.-S., Yada,T., Watanabe,H. and Sakaki,Y.
Park,H.-S., Yada,T., Watanabe,H. and Sakaki,Y.
Published Only einoffice DNA, chromosome 21q
Published Only in Database (1999)
2 (bases 1 to 592)
4 (bases 1 to 592)
7 (bases 1 to 592)
8 (bases 2 Sakaki,Y.)
8 (bases 2 Sakaki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="Vector: pBluescript SK(+); Site_1: SstI; Site_2: XhOI; cDNA was inserted into landa Uni-ZAP XK vector at end with SstI and 3' end with XhOI site. Callus was induced on ZNG media for 30 days and cultured for 36hre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           259 GACCGCCTGGGGGGGCGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GACCGCCTGGGGGGGTTACGGCTGGAATCAAATGAATTGACTGGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA
of Bioscience and Bioinformatics, MyongJi University
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 542;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                       bhnahm@bio.myongji.ac.kr.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7.9%; Score 121; DB 7; Lilarity 100.0%; Pred. No. 2.4e-56; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/chromosome="21"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                   Email: bhnahm@ggbio.com, bhna
Location/Qualifiers
1. .542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                regenerated media'
                         Yongin, Kyeonggi, Korea
Tel: 82 31 330 6193
Fax: 82 31 321 6355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AG019018.1 GI:6017504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 121; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      986 T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                379 T 379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        998
                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 9
AG019018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S42 bp mRNA linear EST 18-AUG-2003 RCii--04-G22.gl Regenerated callus lambda phage cDNA library (RCil) mRNA sequence. CF339295.1 GI:33826975 EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                20-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Oryza sativa (japonica cultivar-group)
Oryza sativa (japonica cultivar-group)
Oryza sativa (japonica cultivar-group)
Sukaryota, Viridiplantee; Streptophyta; Embryophyta; Tracheophyta;
Spermatcophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzae, Oryza.
I (bases: 1 to 842)
Kim,J.S., Jun,K.M., Cheong,P.J., Kim,M.J., Lee,T.H., Shin,Y.C., Song,S.I., Kim,J.K., Kim,Y.-K. and Nahm,B.H.
Large-scale Sequencing Analysis of Rice ESTs
Unpublished (2003)
Contact: Nahm B.H.
Genomics and Genetics Institute, GreenGene Biotech Inc.; Division
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    283 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGGAAGAACCTTACCTGGTCTTGACA 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             223 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC 282
                                                                                                                                                                                                              Pristionchus pacificus
Pristionchus pacificus
Eukaryota; Metazoa; Nematoda; Chromadorea; Diplogasterida;
Neodiplogasteridae; Pristionchus.
I (bases 1 to 224)
Srinivasan, J.; Sinz, W., Lanz, C., Brand, A., Nandakumar, R.,
Raddatz, G., Witte, H., Keller, H., Kipping, I., Pires da Silva, A.,
Jesse, T., Millare, J., de Both, M., Schuster, S.C. and Sommer, R.J.
A BAC-based genetic linkage map of the nematode Pristionchus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATTGAATTGACGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                         BH822044 15.y Pristionchus pacificus BAC ends Pristionchus pacificus genomic, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1. .524
/organism="Pristionchus pacificus"
/mol_type="genomic DNA"
/dr.co. california"
/db_xref="taxon:54126"
/clone_lib="Pristionchus pacificus BAC ends"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7.9%; Score 121; DB 8; Length 524;
100.0%; Pred. No. 2.4e-56;
iive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Sommer RJ
Evolutionary Biology
Max-Planck-Institute for Developmental Biology
Spemanustr. 37-39, Tuebingen D-72076, Germany
Fax: 00497071601371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: ralf.sommer@tuebingen.mpg.de
Class: BAC ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                BH822044.1 GI:20998383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 100.
Matches 121; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unpublished (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               T 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bource
                                LOCUS
                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 8
CF339295
LOCUS
                                                                                                                                                       VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
                                                                                                                                                                                                                    SOURCE
```

a

δ

g

ò

셤

ò

ö

٠,

ò 셤 ò 셤 ઠે

```
онятвиоо
BACPP10-K24.y Pristionchus pacificus BAC ends Pristionchus
pacificus genomic, genomic survey sequence.
BH818000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        985
                                                                                                                                      925
                                                                                                                                                                                                                             985
                                                                                                                                                                428 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGGAAGAACCTTACCTGGTCTTGACA 487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              220 GACCGCCTGGGGAGTACGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                280 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Srinivasan, J., Sinz, W., Lanz, C., Brand, A., Nandakumar, R., Raddatz, G., Witte, H., Keller, H., Kipping, I., Pires da Silva, A., Jesse, T., Millare, J., de Both, M., Schuster, S.C. and Sommer, R.J. A BAC. based genetic linkage map of the nematode Pristionchus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA
                                                                                                                                                                                                                           926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGAAGAACCTTACCTGGTCTTGACA
                                                                                                                                      866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC
                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota, Metazoa, Nematoda, Chromadorea, Diplogasterida,
Neodiplogasteridae, Pristionchus.
1 (bases 1 to 639)
                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /db_xref="taxon:54126"
/clone_lib="Pristionchus pacificus BAC ends"
                                               Length 609;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 639
                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Max-Planck-Institute for Developmental Biology
Spemannstr. 37-39, Tuebingen D-72076, Germany
Tel: 00497071601371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Pristionchus pacificus"
/mol_type="genomic DNA"
/strain="var. California"
                                            Score 121; DB 5; 1
Pred. No. 2.4e-56;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7.9%; Score 121; DB 8; 1
100.0%; Pred. No. 2.4e-56;
ative 0; Mismatches 0;
                                            7.9%; Score 121; DB ilarity 100.0%; Pred. No. 2.4 Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Email: ralf.sommer@tuebingen.mpg.de Class: BAC ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BH818000.1 GI:20989984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pristionchus pacificus
Pristionchus pacificus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Unpublished (2002)
Contact: Sommer RJ
Evolutionary Biology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Fax: 00497071601498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 100.(
Matches 121; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1. .639
                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         pacificus
                                                                                                                                                                                                                                                                                                                                                              T 488
                                                                                                                                                                                                                                                                                                                    986 T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    986 T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 T 340
                                            Query Match
Best Local Simil
Matches 121; C
                                                                                                                                                                                                                                                                                                                                                                 488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 340
                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 11
BH818000
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
  ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                              셤
                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                          원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /done_lib=_bredition_lib=_bredition_lib==bredition_lib==bredition_lib==bredition_lib==bredition_lib==bredition_lib==bredition_lib_gramma or 0.5, 1, 5, or 10 kJ/m2 UV irradiation. Gamma-irradiated samples were harvested at 6, 12, 24 and 48 hours after treatment. UV-irradiated samples were harvested 24 hours post-treatment. CDNA was prepared from polyA+ enriched, pooled samples of equivalent amounts of total RNA from each sample. The CDNA was directionally ligated into the Uni-2ap XR vector (Stratagene) and packaged using the digapack III Gold packaging extracts. Phagemids containing cDNA inserts were in vivo excised from the recombinant Uni-ZAP XR vector using ExAssist helper phage and the E. coli strain XII-Blue MRF' (Stratagene). Excised plasmids were plated using SOLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Torres-Jerez, I to 609)

Torres-Jerez, I., Scott, A.D., Harris, A.R., Gonzales, R.A., Bell, C.J., Flores-Jerez, I., Scott, A.D., Harris, A.R., Gonzales, R.A., Bell, C.J., Flores, H.R., Imman, J.T., Wellar, J.W. and May, G.D.

Expressed Sequence Tags from the Samuel Roberts Noble Foundation Medicago truncatula irradiated library Unpublished (2001)

Contact: May G.

Plant Biology Division

The Samuel Roberts Noble Foundation

2510 Sam Noble Parkway, Ardmore, OK 73402, USA
                                                                                                              °;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BQ152671 609 bp mRNA linear EST 24-APR-2002 NF022A12IR1F1097 Irradiated Medicago truncatula cDNA clone
                                                                                                                                                                                                        233
                                                                                                                                                         866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGCCCCGCAC 925
                                                                                                                                                                                                                                                926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                                       234 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGGAAGAACCTTACCTGGTCTTGACA 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta, Spermatophyta, Magnoliophyta, eudicotyledons, core eudicots, rosids, eurosids I, Fabales, Fabaceae, Papilionoideae, Trifolieae,
                                                                                                                                                                                  174 GACCGCCTGGGGAGTACGCCCCCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC
                                                                                                              Gaps
                                                                                                              ö
                                                                 Length 592;
                                                                                                            0; Indels
                                                               7.9%; Score 121; DB 9; L 100.0%; Pred. No. 2.4e-56; tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'organism="Medicago truncatula"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Email: gdmay@noble.org
Insert Length: 609 Std Brror: 0.00
Plate: 022 row: A column: 12
Seq primer: TCACACAGGAAACAGCTATGAC.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Medicago truncatula (barrel medic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /clone="NF022A12IR"
/tissue_type="seedlings"
/dev_stage="seedling"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /mol_type="mRNA"
/db_xref="taxon:3880"
/clone="B753B2BB067R"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BQ152671
BQ152671.1 GI:20289730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Medicago truncatula
                                                                                    Best Local Similarity 100.0
Matches 121; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tel: 580 224 6650
Fax: 580 224 6692
Email: gdmay@noble
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1. .609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cells."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Medicago.
                                                                                                                                                                                                                                                                                                                                       T 986
                                                                                                                                                                                                                                                                                                                                                                                    294 T 294
                                                                                                                                                                                                                                                                                                                                         986
                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 10
BQ152671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
```

ö

ö

```
986 I 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            T 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                      Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 14
CF339842
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                 FEATURES
                                                                                                                                                                                                                            DRIGIN
                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              646 bp DNA linear GSS 20-MAY-2002
BACPBS-POS.y Pristionchus pacificus BAC ends Pristionchus pacificus
BH833826
BH822078
BACPP17-E05.y Pristionchus pacificus BAC ends Pristionchus
pacificus genomic, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             223 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC 282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      283 AAGCGGTGGACCATGTGGTTTAATTCGATGCAACGGAAGAACCTTACCTGGTCTTGACA 342
                                                                                                         Pristionchus pacificus
Pristionchus pacificus
Pristionchus pacificus
Bukaryota; Metazoa, Nematoda; Chromadorea; Diplogasterida;
Neodiplogasteridae; Pristionchus.

(bases 1 to 646)
Srinivasan, J., Sinz,W., Lanz,C., Brand,A., Nandakumar,R.,
Sradatz,G., Witte,H., Keller,H., Kipping,I., Pires da Silva,A.,
Jesse, T., Millare,H., de Both,M., Schuster,S.C. and Sommer,R.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (bases 1 to 646)
Srinivasan,J., Sinz,W., Lanz,C., Brand,A., Nandakumar,R.,
Saddatz,G., Witte,H., Keller,H., Kipping,I., Pires da Silva,A.,
Jesse,T., Millare,J., de Both,M., Schuster,S.C. and Sommer,R.J.
A BAC-based genetic linkage map of the nematode Pristionchus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGAATGGGGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota, Merazoa, Nematoda, Chromadorea, Diplogasterida,
Neodiplogasteridae, Pristionchus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ó,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Pristionchus pacificus"
/mol_type="genomic DNA"
/strain="var. California"
/db xref="taxon:54126"
/clone_lib="Pristionchus pacificus BAC ends"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 646;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tch
al Similarity 100.0%; Pred. No. 2.4e-56;
121; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                  Contact: Sommer RJ
Evolutionary Biology
Max-Planck-Institute for Developmental Biology
Spenantaria 37-39, Tuebingen D-72076, Germany
Tel: 00497071601371
Fax: 00497071601498
                                                                                                                                                                                                                                                                                                                                                                                                                                Email: ralf.sommer@tuebingen.mpg.de Class: BAC ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                              BH822078.1 GI:20998480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BH833826.1 GI:21034053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pristionchus pacificus
Pristionchus pacificus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Sommer RJ
Evolutionary Biology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unpublished (2002)
                                                                                                                                                                                                                                                                                                   Unpublished (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1. .646
                                                                                                                                                                                                                                                                                  pacificus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       pacificus
                                                           BH822078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            T 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 T 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                                                                                            KEYWORDS
SOURCE
ORGANISM
       LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 13
BH833826
LOCUS
                                                                                                                                                                                      REFERENCE
                                                           ACCESSION
                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                         AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
                                                                              VERSION
                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DRIGIN
```

q

ò

ઠ 셤 à

```
CF339842 658 bp mRNA linear EST 18-AUG-2003 RCL1--06-B12.gl Regenerated callus lambda phage cDNA library (RCL1) Oryza sativa (japonica cultivar-group) cDNA clone RCL1--06-B12,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="Vector: pBluescript SK(+); Site 1: Sat1; Site 2: XhoI; cDNA was inserted into lamda Uni-ZAP XR vector at 5' end with SstI and 3' end with XhoI site. Callus was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          283 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGGAAGAACCTTACCTGGTCTTGACA 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 926 AAGCGGTGGAGCATGTGGTTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unpublication (2007)
Contact: Nahm B.H.
Genomics and Genetics Institute, GreenGene Biotech Inc.; Division of Bioscience and Bioinformatics, MyongJi University
Yongin, Kyeonggi, Korea
Tel: 82 31 330 6193
Fax: 82 31 321 6355
Email: bhnahm@ggbio.com, bhnahm@bio.myongji.ac.kr.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /dev_stage="proliferated callus on 2N6 media for 30 days"
/lab_host="E.coli SOLR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone lib="Regenerated callus lambda phage cDNA library (RCL1)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            223 GACCGCCTGGGGAGTACGCCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Oryza sativa (japonica cultivar-group)"
/mol type="mRNA"
/cultivar="Nackdong"
/db_xref="taxon:39947"
/clone="RCL1-06-B12"
/tissue_type="callus"
                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                                                                                         /organism="Pristionchus pacificus"
/mol_type="genomic DNA"
/strain="var. California"
/db xref="taxon:54126"
/clone_lib="Pristionchus pacificus BAC ends"
                                                                                                                                                                                                                                                                                                                                                                Length 646;
                                                                                                                                                                                                                                                                                                                                                                                                                Indels
Max-Planck-Institute for Developmental Biology
Spemannstr. 37-39, Tuebingen D-72076, Germany
Tel: 00497071661371
Fas: 00497071601498
                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                7.9%; Score 121; DB 8; 1
100.0%; Pred. No. 2.4e-56;
iive 0; Mismatches 0;
                                                                                             Email: ralf.sommer@tuebingen.mpg.de
Class: BAC ends.
                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CF339842.1 GI:33828055
                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 100.0
Matches 121; Conservative
                                                                                                                                                                            1. .646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mRNA sequence.
CF339842
```

Search completed: April 12, 2005, 14:24:54 Job time : 5298 secs

```
BH820342
BACPP14-004.y Pristionchus pacificus BAC ends Pristionchus
pacificus genomic, genomic survey sequence.
induced on 2N6 media for 30 days and cultured for 36hrs on regenerated media"
                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        925
                                                                                                                                                          866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC 925
                                                                                                                                                                                                258 GACCGCCTGGGGAGTACGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC 317
                                                                                                                                                                                                                                         926 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       926 AAGCGGTGGAGCATGTGGTTAATTCGATGCAACGAAGAACCTTACCTGGTCTTGACA 985
                                                                                                                                                                                                                                                              318 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               283 AAGCGGTGGAGCATGTGGTTTAATTCGATGCAACGCGAAGAACCTTACCTGGTCTTGACA 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pristionchus pacificus
Pristionchus pacificus
Pristionchus pacificus
Bukaryota; Metazaca, Nematoda; Chromadorea; Diplogasterida;
Noodiplogasteridae; Pristionchus.

(bases 1 to 661)
Srinivasan, J., Sinz, W., Lanz, C., Brand, A., Nandakumar, R., Sadatz, G., Witte, H., Keller, H., Kipping, I., Pires da Silva, A. Badatz, G., Willare, J., de Both, M., Schuster, S.C. and Sommer, R.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    223 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        866 GACCGCCTGGGGAGTACGGCCGCAAGGTTAAAACTCAAATGAATTGACGGGGGCCCGCAC
                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Pristionchus pacificus"
/mol type="genomic DNA"
/straf="var. California"
/db_xref="vaxon:54126"
/clone_lib="Pristionchus pacificus BAC ends"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 661;
                                                                              Length 658;
                                                                          Query Match 7.9%; Score 121; DB 7; Length 65
Best Local Similarity 100.0%; Pred. No. 2.4e-56;
Matches 121; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Sommer RJ
Evolutionary Biology
Max-Planck-Institute for Developmental Biology
Spemannstr. 37-39, Tuebingen D-72076, Germany
Tel: 00497071601371
Fax: 00497071601498
Email: raif: sommer@tuebingen.mpg.de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7.9%; Score 121; DB 8; L
100.0%; Pred. No. 2.4e-56;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Class: BAC ends.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BH820342
BH820342.1 GI:20995245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 100.C
Matches 121; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Inpublished (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       T 986
                                                                                                                                                                                                                                                                                                                         T 986
                                                                                                                                                                                                                                                                                                                                                                T 378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                T 343
                                                                                                                                                                                                                                                                                                                         986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                  BH820342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMMENT
                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                             셤
                                                                                                                                                            ઠે
                                                                                                                                                                                                셤
                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
```

sie

THIS PAGE BLANK (USPTO)

Unculture Unculture Unculture Unculture

Adelie

9 9 9 9 9 9 9

Psychroba Psychroba

Adelie

Psychroba

Psychroba

OM nucleic

Run on:

Sequence:

Searched:

Database

```
PAT 31-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PD 05-DEC-2000
PF 25-MAY-1999 JP 1999145342
PR AKIHIKO MARUYAWA, KEIKO KITAMURA, RYUICHIRO KURANE PC
CI2N15/09, C12N1/20, C12Q1/68//(C12N15/09, C12R1:01), (C12N1/20, C12R1:01),
C12R1:01),
CC C12N15/00, (C12N15/00, C12R1:01)
                           AF440837

AF140838

AF440831

AF440842

AF440842

AF128777

AF12877

AF1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism='Artificial Sequence'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       other sequences; artificial sequences.

1 (bases 1 to 19)
Maruyama, A., Kitamura, K. and Kurane, R.
DNA probe for detecting novel psychlophile
Patent: JP 200033680-A 2 05-DEC-2000;
AGENCY OF IND SCIENCE & TECHNOL
OS Artificial Sequence
PN JP 200033680-A/2
PD 05-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19 bp DNA DNA probe for detecting novel psychlophile. E58428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 19; DB 6; illarity 100.0%; Pred. No. 47; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1. .19
/organism="synthetic construct"
/mol_type="genomic DNA"
/db_xref="taxon:32630"
                                                                                                                                                                                                                                                                                                                                                                                                                              ALIGNMENTS
                                                                                                                                                                                                                                                                                      AY159792
PSP244767
                                                                                                                                                                             AY377467
AY377473
AY377472
AY377471
AY377471
                                                                                                                                                                                                                                                                                                                    PSP244768
                                                                       AF440831
AF440842
                                                                                                                  AF440846
AF128777
                                            AF440838
                                                                                                                                                  AY377465
                                                                                                                                                                                                                                                         AY377470
                                                                                                                                                                                                                                                                         AY159801
                                                                                                                                                                                                                                                                                                                                                    AY494611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1. .19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CCCGGGGACGATGACATTA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19 CCCGGGGACGATGACATTA 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    E58428.1 GI:18622290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JP 2000333680-A/2.
synthetic construct
synthetic construct
Query Match
Best Local Similarity
Matches 19; Conservat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                      4444444
                            RESULT 1
E58428/c
LOCUS
DEFINITION
ACCESSION
YERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AJ842203 unidentif
AJ842302 unidentif
AR025555 Paychroba
AB094456 Paychroba
AB094458 Paychroba
AJ55109 Paychroba
AJ55109 Paychroba
AJ55101 Paychroba
AB016659 Paychroba
AB016659 Paychroba
AB016659 Paychroba
AB016655 Paychroba
AB016654 Paychroba
AB016654 Paychroba
AB016655 Paychroba
AB016659 Paychroba
AB016659 Paychroba
AB016659 Paychroba
AF440899 Unculture
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             E58428 DNA probe f
                                                                                                    April 12, 2005, 06:04:18; Search time 1416 Seconds (without alignments) 650.176 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
              GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                       4708233 segs, 24227607955 residues
                                                                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                             US-09-979-558A-1_COPY_458_476
19
                                                                                                                                                                                                                                                                                                                                                                               Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AB016055
AB016054
PSP551107
AF440839
AF440847
                                                                         - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PSP551098
PSP551101
AB016059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AJ842303
AJ842302
AF025555
AB094456
AB094458
PSP551093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AB016056
AB016057
E58427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AB016058
                                                                                                                                                                                                1 cccggggacgatgacatta 19
                                                                                                                                                                                                                           IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                E58428
                                                                                                                                                                                                                                                                                                                                    Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                         gb ba...
gb htg:..
gb ow...
gb ov...
gb ph...
gb ph...
gb ph...
gb pr...
gb ro...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1463
1462
1473
1473
11526
11526
11530
11531
11634
11634
11634
                                                                                                                                                                                                                                                                                                                                                                                                                                              GenEmbl: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0
100.0
100.0
91.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score
                                                                                                                                                                                                                            Scoring table:
                                                                                                                                                                                Perfect score:
```

ö

Gaps

Result

```
AB094456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCUS
                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                 ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
VERSION
KEYWORDS
gene
                            rRNA
                                                                                                                                                                                                                                                                                                                             KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
                                                                                                                                                                                                                                         RESULT 4
AF025555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 5
AB094456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                     LOCUS
                                                                                                                                                                                           g
                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             אטטעבטטע 194 bp DNA linear BCT 12-OCT-2004
unidentified bacterium partial 16S rRNA gene, clone SD32.
AJ842302
                                        AJ842303 12-OCT-2004 unidentified bacterium partial 16S rRNA gene, clone SD33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                               Direct Submission
Submitted (08-SEP-2004) Li M., Marine Biogenetic Resource
Laboratory, Third Institute of Oceanography, SOA, 184 Daxue Road,
Xiamen, Fujian Province, 361005, CHINA
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Li.M.
Direct Submission
Submitted (08-SEP-2004) Li M., Marine Biogenetic Resource
Laboratory, Third Institute of Oceanography, SOA, 184 Daxue Road,
Xiamen, Fujian Province, 361005, CHINA
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A survey of microbial diversity around the Chinese Antarctic Research Station and its enviromental significance Unpublished
                                                                                                                                                                                             A survey of microbial diversity around the Chinese Antarctic
Research Station and its enviromental significance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 19; DB 1; Length 193; 100.0%; Pred. No. 47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                         /organism="unidentified bacterium"
/mol_type="genomic DNA"
/db_xref="taxon:2338"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1. .194
/organism="unidentified bacterium"
/mol type="genomic DNA"
/db xref="taxon:2338"
/clone="SD32"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0

    -193
    /gene="16S rRNA"
    /product="16S ribosomal RNA"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                    AJ842303.1 GI:52839363
16S ribosomal RNA; 16S rRNA gene.
unidentified bacterium
unidentified bacterium
Bacteria; environmental samples.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16S ribosomal RNA; 16S rRNA gene.
unidentified bacterium
unidentified bacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bacteria; environmental samples.
                                                                                                                                                                                                                                                                                                                                                                                                                      /environmental_sample
                                                                                                                                                                                                                                                                                                                                                                                                                                                   /gene="16S rRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       66 CCCGGGGACGATGACATTA 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CCCGGGGACGATGACATTA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AJ842302.1 GI:52839362
                                                                                                                                                                                                                                                                                                                                                                                                        /clone="SD33"
                                                                                                                                                                                                                                         (bases 1 to 193)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (bases 1 to 194)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity
Matches 19; Conserva
                                                                                                                                                                                                                           Unpublished
                                                                       AJ842303
                                                                                                                                                                               Li,M.
                                                                                                                                                                                                                                                     Li, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Li, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                   ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
            RESULT 2
AJ842303/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
ACCESSION
                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AJ842302/c
                                                                                                                                                                             AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                      gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rrna
                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
```

ORIGIN

g

```
Psychrobacter glacincola

Psychrobacter glacincola

Psychrobacter glacincola

Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;

Moraxallaceae; Psychrobacter.

El (Dase; Lo 300)

El (Dases Lo 300)

Aquat. Microb. Ecol. 21, 231-244 (2000)

Aquat. Microb. Ecol. 21, 231-244 (2000)

El (Dases Lo 300)

Direct Submission

Spinhassi, Z. Zwaifel, U.L. and Hagstrom, A.

Direct Submission

Submitted (18-SEP-1997) National Environmental Research Institute,

Frederiksborgvej 399, Rokilde DK-4000, Denmark
                                                                                                                                                                                                                                                                                                                                                                                                                                                            300 bp DNA linear BCT 11-SED-2000
Psychrobacter glacincola 16S ribosomal RNA gene, partial sequence.
AF025555
AF025555.1 GI:2582456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ô
                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AB094456 11-DEC-2003
Psychrobacter sp. MJYP.15.12 gene for 16S rRNA, partial sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Psychrobacter sp. MJYP.15.12
Psychrobacter sp. MJYP.15.12
Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
Moraxellaceae; Psychrobacter.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Inagaki, F., Suzuki, M., Takai, K., Oida, H., Sakamoto, T., Aoki, K., Nealson, K.H. and Horikoshi, K. Microbial Communities Associated with Geological Horizons in Coastal Subseafloor Sediments from the Sea of Okhotsk
                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .;
0
                                                                                                                                                                                                            100.0%; Score 19; DB 1; Length 194; 100.0%; Pred. No. 47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 100.0%; Score 19; DB 1; Length 300; Best Local Similarity 100.0%; Pred. No. 47; Matches 19; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Psychrobacter glacincola"
/mol_type="genomic DNA"
farain="MBD12"
/db xref="haxon:56810"
/noTef="isolated from the NW Mediterranean"
                                                                                                                                                                                                                                                                0; Indels
                                                                          <1. .>194
/gene="16S rRNA"
/product="16S ribosomal RNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <1. .>300
/product="168 ribosomal RNA"
                                                                                                                                                                                                                                                                0; Mismatches
'environmental_sample
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     250 CCCGGGGACGATGACATTA 268
                      1. .194
/gene="16S rRNA"
                                                                                                                                                                                                                                                                                                                                                66 CCCGGGGACGATGACATTA 48
                                                                                                                                                                                                                                                                                                                     1 CCCGGGGACGATGACATTA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CCCGGGGACGATGACATTA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AB094456.1 GI:27807566
                                                                                                                                                                                                            Query Match
Best Local Similarity 100.C
Matches 19; Conservative
```

```
<1. .>1473
/gene="16S rRNA"
/product="16S ribosomal RNA"
                                                                                                                                                                                                                                                                      Wang, F., Wang, P., Chen, M. and Xiao, X.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1. .1473
/organism="Psychrobacter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'isolation_source="deep
db_xref="taxon:225861"
/environmental_sample
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AJ551098.1 GI:34525813
IGS ribosonal RNA; 16S rRNA gene.
Psychrobacter sp. wp18
Psychrobacter sp. wp18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /mol_type="genomic DNA"
/isolate="wp8"
                                                                                                                                                                                                                                   Moraxellaceae; Psychrobacter.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Moraxellaceae; Psychrobacter.
                                                                                                                                                                                                                                                                                                                                                                                                                                              Xiamen, 361005, CHINA
Location/Qualifiers
 438 CCCGGGGACGATGACATTA 456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ...1473
'gene="16S rRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              458 CCCGGGGACGATGACATTA 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCGGGGACGATGACATTA 19
                                                                                                                                        AJ551093.1 GI:34525808
                                                                                                                                                                                                                                                                                                                                                           (bases 1 to 1473)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (bases 1 to 1473)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                        AJ551093
                                                                                                                                                                                                                                                                                                                                            15064982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Xiao, X.
                                                                                                                                                                                                                                                                                                                                                                              Kiao, X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                        LOCUS
                                                                                                                                                                                                ORGANISM
                                                                                                                        ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               rRNA
                                                                      PSP551093
                                                                                                                                                                                                                                                                      AUTHORS
                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                            PUBMED
                                                                                                                                                                                                                                                                                                                                                                            AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PSP551098
                                                                                                                                                                                                                                                  REFERENCE
                                                                                                                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PUBMED
                                                     RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 8
                                                                                                                                                                                                                                                                                   TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCUS
 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AB094458 11-DEC-2003
Psychrobacter sp. MJYP.25.32 gene for 16S rRNA, partial sequence.
                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                Direct Submission
Submitted (23-OCT-2002) Fumio Inagaki, Japan Marine Science &
Submitted (23-OCT-2002) Fumio Inagaki, Japan Marine Science &
Technology Center, Subground Animaloule Retrieval (SIGAR) Project,
Frontier Research System for Extremophiles, Natsuchima-cho 2-15,
Yokosuka 237-0061, Japan (E-mail:inagaki@jamstec.go.jp,
Tel:81-468-67-9687, Fax:81-468-67-9715)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Submitted (23-OCT-2002) Fumio Inagaki, Japan Marine Science & Technology Center, Subground Animalcule Retrieval (SUGAR) Project, Frontier Research System for Extremophiles, Natsuchima-cho 2-15, Yokosuka 237-0061, Japan (B-mail:inagaki@jamstec.go.jp, Tel:81-468-67-9687, Fax:81-468-67-9715)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Psychrobacter sp. MJYP.25.32
Psychrobacter sp. MJYP.25.32
Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Inagaki, F., Suzuki, M., Takai, K., Oida, H., Sakamoto, T., Aoki, K., Nealson, K. H. and Horikoshi, K. Microbial Communities Associated with Geological Horizons in Coastal Subseafloor Sediments from the Sea of Okhotsk Appl. Environ. Microbiol. 69 (12), 7224-7235 (2003)
                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 19; DB 1; Length 1403; 100.0%; Pred. No. 46; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 19; DB 1; Length 1462; 100.0%; Pred. No. 46; cive 0; Mismatches 0; Indels 0
Environ. Microbiol. 69 (12), 7224-7235 (2003)
                                                                                                                                                                                                                                                           /isolation_source="subseafloor_sediment" | db_xref="taxon:211898"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Psychrobacter sp. MJYP.25.32"
/mol_type="genomic DNA"
/strain="MJYP.25.32"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /isolation_source="subseafloor sediment"
/db_xref="taxon:211899"
                                                                                                                                                                                                           /organiam="Paychrobacter sp. MJYP.15.12"
/mol_type="genomic DNA"
/strain="MJYP.15.12"
                                                                                                                                                                                                                                                                                                  <1. . >1403
/product="16S ribosomal RNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /product="16S ribosomal RNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Moraxellaceae, Psychrobacter.
                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   440 CCCGGGGACGATGACATTA 458
                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CCCGGGGACGATGACATTA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CCCGGGGACGATGACATTA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AB094458.1 GI:27807568
                                   (bases 1 to 1403)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (bases 1 to 1462)
                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity '
                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity
Matches 19; Conserv
                                                 Inagaki, F
 Appl. Env
14660370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nagaki, F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AB094458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14660370
                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
ACCESSION
VERSION
                                                AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PUBMED
REFERENCE
                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               rRNA
                                                                                                                                                                                                                                                                                                      rrna
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AB094458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
```

```
rst51098 1473 bp DNA linear BCT 17-MAY-2004
Psychrobacter sp. wpl8 partial 16S rRNA gene, isolate wpl8.
AJ551098
PSP551093 1473 bp DNA linear BCT 17-MAY-2004 PSychrobacter sp. wp8 partial 16S rRNA gene, isolate wp8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                  16S ribosomal RNA, 16S rRNA gene.
Psychrobacter sp. wp8
Psychrobacter sp. wp8
Bacteria, Proteobacteria, Gammaproteobacteria, Pseudomonadales,
                                                                                                                                                                                                                                                                                                                                                                          Isolation of extremophiles with the detection and retrieval of Shewanella strains in deep-sea sediments from the west Pacific Extremophiles 8 (2), 165-168 (2004)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Wang, F., Wang, P., Chen, M. and Xiao, X.
Isolation of extremophiles with the detection and retrieval of
Shewanella strains in deep-sea sediments from the west Pacific
Extremophiles 8 (2), 165-168 (2004)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Direct Submission
Submitted (22-FEB-2003) Xiao X., Key Lab of Marine Biogenetic
Resources, Third Institute of Oceanography, SOA, Daxuelu 178,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Direct Submission
Submitted (22-FEB-2003) Xiao X., Key Lab of Marine Biogenetic
Resources, Third Institute of Oceanography, SOA, Daxuelu 178,
Xiamen, 361005, CHINA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 19; DB 1; Length 1473; 100.0%; Pred. No. 46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sea sediment"
```

```
454
  LOCUS
                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                     REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                            TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                        JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 11
AB016056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                            rRNA
                                         ACCESSION
                                                      VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                     PUBMED
                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                硆
                                                                                                                                                                                                                                                                                                                                     Psychrobacter sp. wp21 partial 16S rRNA gene, isolate wp21.
AJ551101
AJ551101
16S ribosomal bu:
                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                           Psychrobacter sp. wp21
Psychrobacter sp. wp21
Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Wang, F., Wang, P., Chen, M. and Xiao, X.
Isolation of extremophiles with the detection and retrieval of
Shewanella strains in deep-sea sediments from the west Pacific
Extremophiles 8 (2), 165-168 (2004)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Direct Submission
Submitted (22-FEB-2003) Xiao X., Key Lab of Marine Biogenetic
Resources, Third Institute of Oceanography, SOA, Daxuelu 178,
Xiamen, 361005, CHINA
Location/Qualifiers
                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                        DB 1; Length 1473; 46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 19; DB 1; Length 1473; 100.0%; Pred. No. 46;
                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                   sea sediment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sea sediment"
              . .1473
organism="Psychrobacter sp. wp18"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Psychrobacter sp. wp21"
/mol_type="genomic DNA"
/isolate="wp21"
                                                                                                                                                                'product="16S ribosomal RNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /gene="16S rRNA"
/product="16S ribosomal RNA"
                                                                                                                                                                                                                                   0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                        100.0%; Score 19;
100.0%; Pred. No.
                                                                 'isolation_source="deep
'db_xref="taxon:225863"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /isolation_source="deep
/db_xref="taxon:225864"
/environmental_sample
                                                                                                                                                                                                                                                                                                                                                                                                               16S ribosomal RNA; 16S rRNA gene.
                                        mol type="genomic DNA"
isolate="wp18"
                                                                                              environmental_sample
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Moraxellaceae; Psychrobacter.
cocation/Qualifiers
                                                                                                           1. .1473
/gene="16S rRNA"
                                                                                                                                                                                                                                                                              458 CCCGGGGACGATGACATTA 476
                                                                                                                                     <1. .>1473
/gene="16S rRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCGGGGACGATGACATTA 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /gene="16S rRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                               1 CCCGGGGACGATGACATTA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCGGGGACGATGACATTA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (bases 1 to 1473)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1. .>1473
                                                                                                                                                                                                     Query Match
Best Local Similarity 100.
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 100.
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               . .1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15064982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Xiao, X.
               Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                              KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE JOURNAL
                                                                                                                                                                                                                                                                                                                               RESULT 9
PSP551101
                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS
TITLE
                                                                                                            gene
                                                                                                                                     rRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
```

RESULT 10 AB016059

C

```
BCT 10-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bioscience and Human-Technology, Department of Applied and Environmental Microbiology, 1-1 Higashi, Tsukuba, Ibaraki 305-8566, Japan (E-mail:maruyama@nibh.go.jp, Tel:+81-298-54-6062, Pax:+81-298-54-612)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BCT 10-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (07-JUL-1998) Akihiko Maruyama, National Institute of Bioscience and Human-Technology, Department of Applied and Envisonmenteal Microbiology; 1-1 Higashi, Tsukuba, Ibaraki 305-8566, Japan (E-mail:maruyama@nibh.go.jp, Tel:+81-298-54-6062, Pax:+81-298-54-6062,
                                                                                                                                                                                                                                                                                                             Maruyama, A., Honda, D., Yamamoto, H., Kitamura, K. and Higashihara, T. Phylogenetic analysis of psychrophilic bacteria isolated from the Japan Trench, including a description of the deep-sea species Psychrobacter pacificensis sp. nov
Int. J. Syst. Evol. Microbiol. 50 Pt 2, 835-846 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 (sites)
Maruyama, A., Honda, D., Yamamoto, H., Kitamura, K. and Higashihara, T.
Phylogenetic analysis of psychrophilic bacteria isolated from the
Japan Trench, including a description of the deep-sea species
Brychrobacter pacificensis sp. nov
Int. J. Syst. Evol. Microbiol. 50 Pt 2, 835-846 (2000)
                                                                                                       AB016059.1 GI:6691640
16S ribosomal RNA.
18S ribosomal RNA.
18S ribosomal RNA.
18Sychrobacter pacificensis
18Sychrobacter pacificensis
18Acteria, Proteobacteria, Gammaproteobacteria, Pseudomonadales,
Moraxellaceae, Psychrobacter.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (07-JUL-1998) Akihiko Maruyama, National Institute of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Psychrobacter pacificensis
Psychrobacter pacificensis
Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
AB016059 1520 bp DNA linear BCT 10-MAY
Psychrobacter pacificensis DNA for 16S rRNA, partial sequence,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HBYChrobacter pacificensis DNA for 16S rRNA, partial sequence, strain:NIBH P2J13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 19; DB 1; Length 1520; 100.0%; Pred. No. 46; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        organism="Psychrobacter pacificensis"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /mol_type="genomic DNA"
/strain="NIBH P2K18"
/db_xref="taxon:112002"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Moraxellaceae; Psychrobacter.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 (bases 1 to 1520)
Maruyama, A. and Kitamura, K.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 (bases 1 to 1525)
Maruyama,A. and Kitamura,K.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCGGGGACGATGACATTA 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CCCGGGGACGATGACATTA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AB016056.1 GI:6691637
16S ribosomal RNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      >1520
                                                         strain:NIBH P2K18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 19; Conserv
                                                                                                                                                                                                                                                                                           1 (sites)
                                                                                     AB016059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10758895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AB016056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10758895
```

么

S

```
unidentified
unclassified.
 unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity
Matches 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (sites)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20222194
                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                               source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                             AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 14
AB016058
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PUBMED
                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            유
                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                            BCT 10-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PAT 31-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Direct Submission
Submitted (07-JUL-1998) Akihiko Maruyama, National Institute of Submitted (07-JUL-1998) Akihiko Maruyama, National Institute of Bloscience and Human-Technology, Department of Applied and Environmental Microbiology; 1-1 Higashi, Tsukuba, Ibaraki 305-8566, Japan (E-mail:maruyama@nibh.go.jp, Tel:+81-298-54-6062,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Maruyama, A., Honda, D., Yamamoto, H., Kitamura, K. and Higashihara, T. Phylogenetic analysis of psychrophilic bacteria isolated from the Japan Trench, including a description of the deep-sea species Psychrobacter pacificensis sp. nov Int. J. Syst. Evol. Microbiol. 50 Pt 2, 835-846 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
Moraxellaceae; Psychrobacter.
                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                       AB016057 1526 bp .DNA linear BCT 10-MA) Psychrobacter pacificensis DNA for 16S rRNA, partial sequence strain:NIBH P2K6(T)(=1FO 16279(T)).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 19; DB 1; Length 1526; llarity 100.0%; Pred. No. 46; Conservative 0; Mismatches 0; Indels
                                                                                                                                                              DB 1; Length 1525; 46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                              Indels

    1525
/organism="Psychrobacter pacificensis"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'organism="Psychrobacter pacificensis"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /mol_type="genomic DNA"
/strain="NIBH P2K6(T)(=IFO 16279(T))"
/db_xref="taxon:112002"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1526 bp DNA
DNA probe for detecting novel psychlophile.
E58427
                                                                                                                                                                                              .;
0
                                                                                               <li...>1525
/product="168 ribosomal RNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <1. -. > 1526
/product="168 ribosomal RNA"
                                                                                                                                                            100.0%; Score 19; DB
100.0%; Pred. No. 46;
ive 0; Mismatches
                                              /mol_type="genomic DNA"
/strain="NIBH P2J13"
                                                                              /db_xref="taxon:112002"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fax:+81-298-54-6412)
Location/Qualifiers
1. .1526
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                          16S ribosomal RNA.
Psychrobacter pacificensis
Psychrobacter pacificensis
                                                                                                                                                                                                                                                CCCGGGGACGATGACATTA 473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      458 CCCGGGGACGATGACATTA 476
                                                                                                                                                                                                                             1 CCCGGGGACGATGACATTA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CCCGGGGACGATGACATTA 19
                                                                                                                                                                                                                                                                                                                                                                                                             AB016057.1 GI:6691638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         E58427.1 GI:18622289
JP 2000333680-A/1.
                                                                                                                                                            Query Match
Best Local Similarity 100.0
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
nes 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (sites)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Int. J. S
20222194
                                                                                                                                                                                                                                                                                                                                                                                            AB016057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .0758895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                             rRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 13
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         E58427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCUS
                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                            硆
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
```

```
Psychrobacter pacificensis DNA for 16S rRNA, partial sequence, atrain:NIBH P2K17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Maruyama, A. and Kitamura, K.
Direct Submission
Submitted (07-JUL-1998) Akihiko Maruyama, National Institute of
Bioscience and Human-Technology, Department of Applied and
Environmental Microbiology, 1-1 Higashi, Tsukuba, Ibaraki 305-8566,
Japan (E-mail:maruyama@nibh.go.jp, Tel:+81-298-54-6062,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Maruyama, A., Honda, D., Yamamoto, H., Kitamura, K. and Higashihara, T. Phylogenetic analysis of psychrophilic bacteria isolated from the Japan Trench, including a description of the deep-sea species Psychrobacter pacific
                                                                                                                   PI AKIHIKO MARUYAMA, KEIKO KITAMURA, RYUICHIRO KURANE PC
C12N15/09,C12N1/20,C12Q1/68//(C12N15/09,C12R1:01),
PC C12N15/00,(C12N15/00,C12R1:01)
PC C12N15/00,(C12N15/00,C12R1:01)
FT KRY
FT FRND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16S ribosomal RNA.
Psychrobacter pacificensis
Psychrobacter pacificensis
Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
Moraxellaceae; Psychrobacter.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 19; DB 6; Length 1526; 100.0%; Pred. No. 46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1. .1530
/organism="Psychrobacter pacificensis"
/mol_type="genomic DNA"
/stain="NIBH P2K17"
Maruyama, A., Kitamura, K. and Kurane, R.
DNA probe for detecting novel psychlophile
Patent: JP 2000333680-A 1 05-DEC-2000;
AGENCY OF IND SCIENCE & TECHNOL
OS PSychrobacter pacificus
PN JP 200033360-A/1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /product="16S ribosomal RNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Jan Produ
                                                                                                                                                                                                                                                                                                                                          (1). (1526)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                    1. .1526
/organism="unidentified"
/mol_type="genomic DNA"
/db_xref="taxon:32644"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'db_xref="taxon:112002"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCGGGGACGATGACATTA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AB016058.1 GI:6691639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Fax:+81-298-54-6412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19; Conservative
```

```
S Maruyama, A. and Kitamura, K.
S Maruyama, A. and Kitamura, K.
Direct Submission
Di
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AB016055 1531 bp DNA linear BCT 10-MAY-2000 Psychrobacter pacificensis DNA for 16S rRNA, partial sequence,
                                                                                                     ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 (sites)
Maruyama, A., Honda,D., Yamamoto,H., Kitamura,K. and Higashihara,T.
Phylogenetic analysis of psychrophilic bacteria isolated from the Japan Trench, including a description of the deep-sea species bychrobacter pacificensis sp. nov
Int. J. Syst. Evol. Microbiol. 50 Pt 2, 835-846 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16S ribosomal RNA.
Psychrobacter pacificensis
Psychrobacter pacificensis
Bsychrobacter pacificensis
Morexellaceae; Psychrobacter.
Morexellaceae; Psychrobacter.
                                                                                                     Gaps
                                                                                                     ·
0
Query Match
Best Local Similarity 100.0%; Pred. No. 46;
Matches 19; Conservative 0; Mismatches 0; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     460 CCCGGGGACGATGACATTA 478
                                                                                                                                                                                    1 CCCGGGGACGATGACATTA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AB016055.1 GI:6691636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              strain:NIBH P2J3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 15
AB016055
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                       g
```

ô

Gaps

ö

Query Match 100.0%; Score 19; DB 1; Length 1531; Best Local Similarity 100.0%; Pred. No. 46; Matches 19; Conservative 0; Mismatches 0; Indels C

Search completed: April 12, 2005, 09:31:16 Job time : 1419 secs

466 cccedecaccarcarra 484

1 CCCGGGGACGATGACATTA 19

දු දු

. }

Ę